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NATURE LOVER'S SERIES

PLANT NAMES

BY

T. S. LINDSAY, B.D.

ARCHDEACON OF DUBLIN

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PREFACE

IT is very unlikely that all the derivations given in this book are correct, and learned readers must form their own judgment in each case. For even the soundest etymologists resort to conjecture sometimes, and there is no branch of learning in which it is more useful. I can only say that I consulted the best authorities, and that when a derivation seemed doubtful I said so. But a critic will find plenty of marks at which to have a shot, and when the attempt has been made to explain over a thousand names there is sure to be difference of opinion about some, probably many, of them.

I hope, however, that my readers will not be backward in letting me know if they discover errors, and if they are kind enough to do so careful notes will be taken with a view to a second edition, should such be called for. I shall also be grateful for suggestions as to additional names to be explained, or, indeed, as to any new facts or the discussion of new subjects which may add to the interest or usefulness of the book. I should like

to think of my readers as collaborators, friends going round their gardens and through the fields and woodlands, and sharing with me the desire to know the meaning and origin of the names of the trees and flowers which we love.

I have to express my obligations to Miss White, LL.D., Principal of the Alexandra College, Dublin; to Miss May Crosbie; to Sir Frederick W. Moore, F.R.H.S., late Director of the Royal Botanic Gardens, Glasnevin; to the Rev. Canon Kingsmill Moore, D.D., Principal of the Church of Ireland Training College, Dublin; to R. Lloyd Praeger, Esq., Librarian of the National Library of Ireland; to Lieut.-Colonel Sir John Ross of Bladensburg, K.C.B., K.C.V.O.; and to Colonel the Hon. M. G. Talbot, C.B., who most kindly helped me in various ways.

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PLANT NAMES

THIS book is not intended for the learned, nor does it pretend to treat the subject exhaustively. It is for those of my fellow-gardeners who, like Shakespeare, know "small Latin and less Greek." It is meant to help them to understand, and by understanding to remember, those long, weird names of trees, shrubs, and plants which appal the beginner and excite the wondering admiration of the ignorant. Once we know what a name means and why it was given, it is easier to remember it, for it excites our interest, just as we take more interest in the planets and constellations when we know the names which they have borne so long and learn their origin.

Some garden-lovers are content with the common English names of flowers, such as Pansy or Daffodil. These are probably not very advanced horticulturists, and if their interest widens they will soon find themselves growing plants which have no English names, and they will have to retain in their minds by sheer force of memory hard, strange names of whose meaning they have not the slightest idea. Many gardeners, having accomplished this, are so proud of it that they begin to despise the old English names, and when their friends come to see

their gardens they will call a Forget-me-not *Myosotis*, and a Wallflower *Cheiranthus*. This is really a rather ridiculous pedantry; no first-rate gardener will do it. As well might we in our ordinary talk call an Oak *Quercus*, or a Daisy in the lawn *Bellis perennis*. An old poet satirizes this habit:

" High-sounding words our worthy gardener gets,
And at his club to wondering swains repeats;
He there of *Rhus* and *Rhododendron* speaks,
And *Allium* calls his Onions and his Leeks;
Here *Arum*, there *Leontodon*s we view,
And *Artemisia* grows where Wormwood grew."

Perhaps pedantry of this kind has helped to cause the popular prejudice against the scientific terminology of plants. Why not, people sometimes say, be satisfied with the popular English names? Is it fair to the lovely little flowers to link them with these horrid words? And does it not scare away beginners who find that they have to burden their memories with a multitude of names which convey no meaning to them?

This prejudice against scientific names is unreasonable. Every science has a whole vocabulary of terms which repel the outsider. A boy gets interested in moths or birds or stones, and he soon finds that he has to learn plenty of long names derived from Greek and Latin, which in a short time become familiar to him. Why should Botany be an exception?

But really no science could dispense with such words. For science is an international thing;

scientists of all nations are working together for the discovery and turning to use of the secrets of nature, and that would be greatly hindered if each nation insisted on using its own terms, and there were no international nomenclature. And such a nomenclature, if formed of words of one living language, would never prevail. But all will agree to use one founded on Greek and Latin roots, the knowledge of which is common to the learned in all nations in the world.

But, in truth, these botanical names are extremely interesting and instructive when one understands their meaning. The person who gave a plant its name had some reason for his choice. It may have been thousands of years ago or only last year, but if we can find out why he gave it we shall probably know something about that plant, the country of its origin, or its discoverer, or the habitat it loves, or the useful purpose it served, or some medicinal property which it possesses or was supposed to possess, or some peculiarity which was thought to be distinctive. Thus botanical names are interesting, not only to the etymologist, as all words are, but to the garden-lover. They tell him something about his plants which he did not know before, and he loves them all the more for knowing it. He is familiar with the Geranium or Cranesbill, the Pelargonium, and the Erodium. When he looks at the beak-like formation of the ripe seed pod, how glad he is to know that *geranos* is the Greek for a crane, *pelargos* for a stork, and *erodios* for a heron.

He is also pleased to recognise the felicity of the name Columbine, from *columba*, a dove, when he sees the doves with arched necks and fluttering wings clustered around its lovely bloom.

There is still another way in which plants' names convey useful instruction. I will explain it by two illustrations.

It is well known that most of our tree fruits come to us from Southern Europe and the region surrounding the Mediterranean, and accordingly we find their names derived from the Greek and Latin languages. Such are the Peach, the Pear, the Apricot, the Nectarine, the Damson, the Plum, and the Prune. These are anglicized forms of the old Greek and Latin names which have reached us after passing through some Romance tongue—French, Italian, or Spanish. There is, I think, but one exception to this rule. The word "apple" is of the Teutonic stock, and accordingly we find that the Apple is the only tree fruit of any importance that is indigenous to the north of Europe. The same is true of forest trees. The Oak, Holm Oak, Ash, Beech, Hornbeam, Yew, Hawthorn, Holly, Aspen, Maple, Lime, Alder, and Elder all have Teutonic names, indicating that they grew in northern countries in ancient times. The names of the Cypress, Elm, Chestnut, Poplar, Fig, Myrtle, Box, Sycamore, Pine, and Larch are words of southern origin, showing that these trees came from the south.

This principle runs through the whole list of plant names, and, therefore, to know the region

from which the name of any plant came affords a fair presumption of the region where it is indigenous. From the names of species, too, which are generally descriptive, the gardener can sometimes get valuable hints. When he finds a plant described as *himalaicus*, *caucasicus*, *alpinus*, or *montanus*, he knows that it is at home on high elevations; or if it is called *canadensis*, *sibericus*, or *arcticus*, he knows that it will stand a severe winter. If it is *japonicus* or *atlanticus*, he may count on its being fairly hardy. If it is *chilensis* or *mexicanus*, he will plant it in a warm, sheltered place or against a south wall. And if it is *javanicus* or *madagascarensis*, he will consider it a fit subject for a hot-house. If, again, it is labelled *aquaticus*, *paludosus*, or *lacustris*, he infers that it will not thrive except by the pond-side or in swampy ground.

The study of popular plant names is quite distinct from that of the botanical names. Every country has its own names; consequently, these cannot be used internationally, and are not regarded by botanists. But they are very interesting, and throw light on the character of the various races, their folklore, their superstitions, their imagination, their sense of beauty and poetical fancy. What a picture, for example, does the name *Goldregen* or *Goldrain*, the German for the Laburnum, bring before our eyes! It is truer than even Tennyson's "dropping wells of fire."

In our country very few names have come down to us from pre-Saxon times, except from Celtic

districts such as Ireland, Wales, and Cornwall. Most names are of Anglo-Saxon origin. And even of these many were adapted from the Latin, generally by the monks, who were in those times the only people who had any scholarship or any smattering of botanical knowledge. *Plantain*, for instance, is the anglicized form of *Plantago*, and *Daffodil* of *Asphodelus*. Some were translations, as *Loosestrife* from *Lysimachia*.

But a great many of our Anglo-Saxon popular names are of Teutonic stock. Such are all ending in "lick" or "lock" (from which Leek), meaning a plant, as *Charlock* and *Garlic*. (The "gar" in this last word meant a spear or sharp point. It is allied to the verb "to gore.")

In the North of England names sometimes come from Norse and Danish sources, and roughly indicate the limits of their settlements, just as do "by" and "thwaite," as terminations of town and village names. *Rowan* is such a name. It is connected with rune, a charm, and was so called because it was supposed to avert the evil eye. A good many names of common plants are also derived from the Dutch or Old High German—*Buckwheat*, e.g., where buck is beech, the seeds being considered to be like beech-mast. Then a vast number of names come to us directly from the French, ultimately from Greek and Latin. *Dandelion* is *Dent de lion* (the lion's tooth). *Mushroom* is from the French *Mousseron*, which came from the Latin *muscus* (from which also moss), a moorland, referring to its habitat.

HISTORY OF PLANT NAMING

THE first real attempt to put botanical nomenclature on a scientific basis was made by Theophrastus, a Greek philosopher who lived from 370 to 286 b.c. He was the favourite pupil and the successor of the celebrated Aristotle, who bequeathed to him his library and the originals of his works. He presided over the peripatetic school of philosophy in Athens for thirty-five years, and left to it his garden, with house and colonnades, as a permanent seat of instruction. He was a man of wide and varied intellectual interests, and wrote books on biological, metaphysical, astronomical, ethical, political, and rhetorical subjects. But most of these have been lost, and by far the most important that have come down to us are two large botanical treatises, "On the Study of Plants," and "On the Causes of Plants." The first of these contained ten books, of which nine have survived. We should not expect a pioneer like Theophrastus to produce a work of scientific accuracy, but, imperfect as it necessarily was, it commands our admiration, and it was a help and stimulus to his successors in the same field. He describes about five hundred species of plants, but his chief interest in them lay in their medicinal properties.

In the reign of the Roman Emperor Nero—that is, in the first century of our era—another Greek, an

army doctor named Dioscorides, wrote a book on *Materia Medica*, in which he describes the virtues of many plants and calls them by their current names.

About the same time, or a little later, the same subject was treated by the elder Pliny, who was Admiral of the Roman fleet, and perished in the great eruption of Vesuvius, A.D. 79, that destroyed Pompeii. Like Theophrastus, he was a man of great intellectual activity, and interested in many subjects. He was not only a sailor, but a soldier, a lawyer, and a philosopher, an insatiable reader and a voluminous writer. He tells us that much of his literary work was done in hours stolen from sleep. Among other treatises, he wrote fifty books of history, and he left a hundred and fifty notebooks of extracts written, as his nephew, the younger Pliny, tells us, in a very small script on both sides of the page. All are lost with the exception of his " *Naturalis Historia*," in thirty-seven books, which is preserved in nearly a complete state. Of this huge work, sixteen books treat of trees and plants, two of which are concerned with their medicinal properties. And as in them he enumerates about five hundred species by name, they are valuable from our present point of view. The information they give is not, however, so useful as one might suppose, because it is often doubtful whether we can with any certainty identify the plants to which he refers. There is no source of error and of quarrelling so frequent and mischievous as the use

of the same word to signify two different things. How much political and religious wrangling would have been saved if men had only made sure that they meant the same thing by the language they used! And so it is in Botany. Some of the names used by Pliny certainly refer now to plants different from those to which he applied them, and of many it is doubtful. The incorrect use of names is a fruitful source of error. People usually call the *Philadelphus* a *Syringa*. They suppose the Mountain Ash to be a species of Ash (*Fraxinus*), when it is really a Pear (*Pyrus*), and they imagine what they call the Asparagus Fern to be of the Fern family. And so it is of the first importance in plant nomenclature that all botanists in the world should agree to adopt one name for each plant, and that this name should unquestionably identify its owner, so far as possible, with the same plant as that referred to by writers in past times.

But even with this reserve the work of Pliny is of great value. With all its faults it is an astounding monument of industry, and it proved of inestimable service for centuries in fixing plant names. "The work of Pliny," says Cuvier, "is one of the most precious monuments that have come down to us from ancient times, and affords proof of an astonishing amount of erudition in one who was a warrior and a statesman."

After Pliny, little was done in classifying and naming plants for many centuries, the chief work in Botany, as in other sciences, being done by the

clever Moors who invaded Southern Europe, especially Spain, after the incursions of the northern barbarians had ceased. But their interest in Botany, too, lay in the medicinal use of plants, and a number of them compiled Herbals treating of "Simple Medicines," afterwards shortened to "Simples." From that time until the invention of printing Botany made no progress. Then came the great revival of learning and interest in all branches of knowledge known as the Renaissance, which owed its rise to three main causes: the invention of printing, the dispersal through Europe of the scholars and books of Constantinople after its capture by the Turks in 1453, and the discovery of the New World. The works of classical authors were printed and eagerly studied. Pliny appeared in book form in 1468, Dioscorides in 1478, and Theophrastus in 1483. With the discovery of America there was a great increase of new plants supplying articles of food or luxury, or prized for their beauty. This greatly stimulated the art of gardening in Europe, and it became a favourite hobby with the wealthy and with patrons of learning to employ those skilled in horticulture to lay out and manage their gardens. Anne of Cleves, one of the wives of Henry the Eighth, was devoted to this pursuit, and helped to make it fashionable. Choice trees, vegetables, and flowers were imported into England; but still the main interest lay in the supposed medicinal virtues of plants. Some of the cures were very quaint.

In the "Grete Herbal," published in 1516, we find a cure—

"FOR DRONKENNESSE.

"To eschewe dronkennesse, drink the iuce of bryony with as moche vyneyger, and he shal not be dronke al that weke."

It would seem a simpler plan to abstain from intoxicants!

Again:

"FOR BYTINGE OF A WOOD (MAD) DOGGE.

"And if walnuts be stamped with salte and an onyon they be good for byting of a wood dogge if it be layde thereto."

On the continent of Europe, too, there was much botanical investigation, and the names of some of the eminent botanists of the time are enshrined for ever in those of familiar plants. The *Fuchsia* is called after Fuchs, a German physician, who published in 1542 a "History of Plants." *Lonicera*, to which genus the Honeysuckle belongs, is called after Adam Lonicer, of Frankfort, who died in 1586. *Lobelia* is from Lobel, a Belgian physician, who died in London in 1616. *Matthiola*, the Stock, commemorates Matthioli, an Italian physician who wrote a commentary on the works of Dioscorides. *Magnolia* is from Pierre Magnol, who lived from 1638 to 1715. Other botanists of the time in whose honour genera are named were Gesner of Zurich,

Cæsalpinus of Arezzo, Alpini of Padua, Gerard of Cheshire, and Turner, an English clergyman.

During the seventeenth century a fair amount of work was done in classifying plants, studying their nature and culture, and fixing their names. But in the eighteenth century Linnæus arose, that never-to-be-forgotten enthusiast to whom the science of Botany owes so much. He was a Swede, born in 1707, the son of a poor clergyman. By his ability, his untiring industry, and his unconquerable resolution, he rose to be an eminent physician, Botanist to the King, President of the Swedish Academy of Science, and Professor of Botany at Upsala University, and was finally raised to the nobility, and became wealthy enough to purchase a fine estate. He was elected a member of all the learned societies of Europe, and, when he died, was buried in the Cathedral of Upsala. The whole University went into mourning, and the King expressed the national grief in a speech from the throne, and had a medal struck to commemorate him.

Notwithstanding all the honour he received during his life—enough to turn the heads of most men—Linnæus kept to the end the beautiful humility which was natural to him. The desire was expressed that some plant should bear his name, and he selected the little *Linnæa borealis* as the most appropriate. He described it as “this little northern plant, long overlooked, depressed, abject, flowering early,” and he said that it reminded him of the hardships and struggles of his own early life.

He loved this modest flower, and had it painted on his teacups. It flourished in the most northerly regions of Europe, Asia, and America, and in our islands is only found in the east of Scotland and at one place in Northumberland.

The story is well known how, on his visit to England, he saw for the first time the stretch of golden blossom on the Furze at Putney Heath, and how he fell on his knees and thanked God for having created a plant of such wondrous beauty. Indeed, he united to his great gift of genius a deep piety, and over his study door he had the motto painted, "Live innocently: God is present."

His work was generously appreciated in England, and a Linnæan Society was formed, now one of our great learned bodies. This society owns the magnificent natural history collection which he made. It contains 2,000 books and manuscripts, 3,198 insects, 1,564 shells, 2,424 minerals, and 19,000 plants. It was very nearly lost to our country. Sir James Smith, an English botanist, bought it from the widow of Linnæus in 1784 for 900 guineas, and the Treasury agreed to forgo Customs Duty. The King of Sweden, who had been absent in France, returned just as the collection had left the harbour on board the British vessel *Appearance*. He immediately ordered a frigate to pursue her. An exciting chase began, the vessels under full sail and in sight of each other. The frigate, however, failed to overtake the *Appearance*; she sailed triumphantly up the

Thames and landed her precious freight safely in London.

Linnæus' work in Botany was twofold. First, his system of classification, based on the number and position of the stamens and pistils, the pollen-bearing and seed-bearing parts of a plant, just as he classified mammals by their teeth and birds by their beaks and feet. It was not a sound system, for it sometimes groups plants together which have nothing in common besides this particular set of organs. Thus it happens that in the Linnaean system Valerian, Butcher's Broom, Irises, and Sedges are classed together. But defective as the system was, it was extremely useful until the larger and truer classification expounded by Bentham and Hooker in England, and in a slightly different form by Engler in Germany, superseded it. The other great work of Linnæus, with which we are concerned here, was in nomenclature. In this department his work was sound, and in essentials remains a law for botanists. He laid down thirty-one canons, most of which hold good to this day. His main idea was to denote each plant by two names, referring to its genus and species, the first being a substantive, the second an adjective, agreeing with the first in gender, or in some cases a substantive used adjectively. Before his time plants used to be identified by long Latin descriptions. Thus the Dog Rose would be *Rosa sylvestris vulgaris flore odorato incarnato*—that is, “the common Rose of the woods with a sweet-scented, flesh-coloured flower.” Lin-

næus called it *Rosa canina*—that is, the Dog Rose. This principle he applied not only to plants, but to every mammal, bird, fish, reptile, and insect, distinguishing each by a definite name of two Latin or Greek words. Two words, giving the genus and species, certainly do not give a complete definition of a plant, but in practice they are sufficient to identify it with reasonable accuracy, though they do not take account of the varieties into which species are subdivided nor of the larger classes which contain them. Take, for instance, the common Primrose. First, it is of the group of Phanerogams or Spermatophyta—that is, of those plants that have flowers and seeds, not of the Fungi, Mosses, or Ferns. Secondly, it is of the Angiosperm section of Phanerogams—that is, its seeds are contained in a vessel, and not exposed. Thirdly, of the Angiosperms it is of the Dicotyledon division—that is, that when the seed germinates it produces two primary leaves, not one. Fourthly, it belongs to the Gamopetalæ section of Dicotyledons—that is, the petals that form the perianth are united, not distinct. Fifthly, it belongs to the Primulales cohort of Gamopetalæ, and to the division of Primulaceæ. Sixthly, of the Primulaceæ, it is of the genus *Primula* and of the species *Vulgaris*, and of this it may be double or *flore pleno*, or one of a dozen other varieties. But if you wish to indicate “the Primrose by the river’s brim,” it is quite sufficient to call it *Primula vulgaris*.

It may not, perhaps, be out of place to give at

this point a brief statement of the principles of classification adopted by botanists. We must not suppose that the Creator made the vegetation that we now find in the world divided into distinct compartments like those in a museum. Botanists have done that for reasons of convenience, and the arrangement of these divisions has been to a great extent arbitrary. It used to be supposed that variation in species was restricted by fixed limits, and that when varieties appeared they tended to revert to the parent form. It is now known that variation is a continuous process, and may be extended in any direction under the influence of varying external conditions, so that new species and genera are still appearing. Thus there is only a difference of degree between a variety and a species, between a species and a genus, and between a genus and an order, and the classifying of any plant, or set of plants, must be left to the judgment of botanists.

It is then agreed, as the most convenient system, to regard as a species a group of individual plants which possess certain well-marked features in common, and which propagate with each other. But sometimes a species is subdivided into varieties, each variety possessing some characteristic of less importance than those which determine the species. There is no central authority recognized by all to settle these matters, consequently there is no absolute agreement. *Brassica oleracea*, for instance, is the Cabbage. Some botanists make this the

species, and *B. botrytis* or broccoli, *B. cauliflora* or cauliflower, *B. fimbriata* or borecole, *B. napus* or rape, are varieties under it. Others make *Brassica* the species and *B. oleracea* a variety with the others.

Then a group of species which possess in common certain features of a more general nature is called a genus, and in the same way genera are grouped into families and families into orders. Thus the Oaks, Chestnuts, and Beeches, which agree in having their flowers in tassel-like clusters and their seeds in the form of one-seeded nuts, make up the Beech family, or *Fagaceæ* or *Cupuliferæ*. So, too, the Birches, or family of *Betulaceæ*, which have some important features in common with the *Fagaceæ*, are by some botanists grouped with them under the order *Fagales*. And the plants, like Cabbage, whose flowers consist of four petals like a cross, belong to the family of *Cruciferæ*.

Linnæus' principle, then, was to give each plant two names, defining its genus and its species. This is called the binomial system. We often find plants described by three names. The third defines the variety. The Sweet William, for example, is *Dianthus barbatus*, but we find in seedsmen's lists a number of varieties, such as Carmine Beauty, Diadem, or Giant White. These are not usually of any botanical importance. The modern tendency is to divide and again subdivide, and so we find a Fern which rejoices in the name *Athyrium Filix-femina angustatum congestum ramulosum*. It might be a member of the Royal Family! But only the

first two words constitute the true name. The others refer merely to varieties.

Another illustration of the length of the names which botanists of those times had to memorize is found in a letter to Linnæus from his friend Dillenius, which contains the following passage:

"In your last letter I find a plant gathered in Charles Island, on the coast of Gothland, which you judge to be *Polygonum erectum angustifolium, floribus candidis* of Mentrelius, and *Caryophyllum saxatile, foliis gramineis, umbellatis corymbis*, C. Bauhin; nor do I object. But it is by no means Townæfort's *Lychnis alpina linifolia multiflora, perampla radice*, whose flowers are more scattered and leaves broader in the middle, though narrower at the end."

Linnæus simply called the plant which Mentrelius and Bauhin denoted by these long names *Gypsophila fastigiata*, and that is its name now.

If anyone discovers a new genus or a new species of a known genus he can name it, and have the name registered and accepted by botanists all over the world by a process which I shall explain, but he is free to proclaim that he has produced a new variety and to name it without asking anyone's leave. But then he cannot prevent others from calling it by the name of their choice and claiming it as theirs. Nurseryman Smith has got hold of a fine variety of onion, and advertises it as *Smith's Superb Giant*. Nurseryman Jones gets some of the seed, grows it, and next year announces *Jones' Mammoth Ne Plus*

Ultra. There is no accepted law as to names of varieties. But botanists heed them not.*

Linnæus was careful so far as possible to preserve the old generic names. But there were cases in which he thought that a class of plants previously regarded as a genus ought to be included under another genus. He then used its former name as a specific name. For example, Milfoil he placed under the genus Achillea, and instead of coining a specific name for it he called it *Achillea Millefolium*. Such cases are exceptions to the rule that the specific name is an adjective, and to mark the fact that *Millefolium* is a substantive it is spelt with a capital, and retains its original termination. The meadow flower that used to be called *Bistorta* he put under the Polygonums. Its proper name, therefore, is not *P. bistortum*, but *P. Bistorta*.

Linnæus, as I have said, laid down thirty-one rules for the naming of plants, of which Lindley remarks that they were undoubtedly excellent in many respects, and that to them we must attribute much of the perfection of natural history since his time. But he adds that adherence to some of them is impossible, and that these have fallen wholly into disuse. There is, however, difference of opinion as to which rules should be observed and which discarded.

* Some botanists do recognize *botanical* varieties as distinguished from *horticultural*. But such a distinction is difficult to establish, and it would seem to contravene Linnæus' binomial rule, which is that two, and only two, names should be botanically applicable to each plant.

Linnæus, for instance, lays it down that no generic name from barbarous languages should be admitted, and that all languages are barbarous except Greek and Latin. Lindley considered this rule to be quite unworkable, but Sir J. E. Smith, another eminent botanist, but of the Linnæan school, adopts it. He says that without it we should be overwhelmed with a torrent of uncouth and unmanageable words. But even he admits some exceptions. He says: "Perhaps the barbarous names of some very local plants, when they cannot possibly have been known previously by any other, and when that name is harmonious and easily reconcilable to the Latin tongue, may be admitted, as that of the Japan shrub *Aucuba*; but such a word as *Gingko* is intolerable."

Linnæus also lays down as inadmissible for generic names those compounded of two entire words, such as *Crista-galli*; those formed of two Latin words, as *Sempervivum*; hybrids composed half of Greek and half of Latin, as *Cardamindum*; names ending in -oides, as *Asteroides*; names sounding like other generic names; names at variance with the character of any of the species; and names given to gain the favour of saints or of persons celebrated in other sciences. He approves of names containing those of ancient deities or of great botanists; he desires to retain the old names, be they good or bad, and he approves most of all of those which express the essential character or habit of the genus.

Since the time of Linnæus the science of Botany has made great strides, and thousands of new plants

have been introduced. But his method of naming remains substantially as he left it.

There is now no absolutely authoritative botanical body in the world which meets regularly for the decision of doubtful questions, and with power to register names. But in 1867 an International Botanical Congress was held in Paris, when De Candolle prepared a set of rules. These were adopted, and were amended at subsequent congresses at Genoa in 1896, at Vienna in 1905, and at Brussels in 1910, and they now hold the field. An International Committee was also appointed which assumes control over matters of priority and synonymy. This committee does not assign names; that is done by whoever first describes the plant. He must publish in some botanical journal of repute a description, preferably in Latin, giving its fixed characteristics which distinguish it from other genera or species. He must also preserve a specimen as a type. The direction is that this is to be mounted on stiff white paper $16\frac{3}{8}$ by $11\frac{1}{2}$ inches, and is to be placed in a herbarium for reference. Once a name is given no one, not even the author, can change it; and if he has named it wrongly, the error will always be associated with him.

It will sometimes happen that a plant is found and named by two people about the same time. When this is discovered, it becomes the duty of the International Committee to decide which name was given first, and that will be the plant's true name, the other being sometimes added as a synonym. For

example, Hooker described a certain *Rhododendron* which he found in the Himalaya region, and named it *Aucklandii*, after the Indian Viceroy at the time. It was afterwards ascertained that the species had been already described by someone else, and named after the Anglo-Indian plant explorer *R. Griffithianum*, and so, according to the rule, that is the correct name. Another example is *Crinodendron Hookeri* or *Hookerianum*, which has been changed to *Tricuspidaria hexapetala*, and I think more recently to *T. lanceolata*.

But this process of changing the name of a plant, necessary as it sometimes is, is very troublesome and annoying to gardeners. *Ozothamnus* and *Benthania*, for instance, received those names because it was believed that they were distinct genera. It was afterwards found that they were but species of *Helichrysum* and *Cornus*.

PRONUNCIATION, SPELLING, AND GENDER

GARDENERS are often sorely puzzled about the proper pronunciation of the long hard words they have to learn, and they are shy of using them lest they should betray their ignorance. My advice to such a gardener is: "Pronounce them in any way you like, preferably in the customary way." There is really no rule, and it is just as correct to say Pitto'sporum as Pittospo'rum, or Centa'urea as Centaure'a. Pronunciation is, and always has been, a matter of popular usage, and many words have changed their sound even in my own lifetime. Two hundred years ago a lady would say, "I shall be obligeed for a cup of tay," and I can remember when everyone said "ospital," "umble," "erb," and "*The Illu'strated London News.*" The Greeks have totally changed the pronunciation of their language, and do not observe any distinction between the long and the short *e* and *o*, as their ancestors did. If a reader of the Bible were to pronounce the names Abraham, Moses, James, or John as their contemporaries pronounced them, his hearers would not know of whom he was reading. Really, we hardly know how the old Greeks and Romans pronounced. Their poetry is some guide as to accent and quantity, but as rime was unknown to the ancients we are deprived of its aid. In reading Greek and

Latin we have now conventional rules which are rigidly observed by scholars, but these same scholars disregard these rules, and follow usage when a Greek or Latin word is adopted into the English language. There is a story of a speaker in the House of Lords who in the course of his speech said "cu'rātōr." Another noble lord corrected him, and said it should be "cura'tor." The speaker, with great wit and readiness, replied, "I bow to the opinion of so eminent a sena'tor and so eloquent an ora'tor." Thus, strictly speaking, we should say "gla'dīolus," "anemo'ne," "eri'ca," "ar'būtus," and "ænothe'ra"; but if your neighbours pronounce them otherwise, you need not correct them.

When in doubt as to usage, it is better to observe the original rule of the language from which the name is taken. *Ch*, when it represents the Greek *chi*, should be hard; thus *Anchusa* should be pronounced Ankusa. On the other hand, the Greek *k* is in English transliterated into *c*, and we had better follow our rule for that letter, absurd as it is, to sound it as *s* before *e*, *i*, *æ*, or *y*, and as *k* before *a*, *o*, or *u*. Thus, while the Germans say Kaiser, we speak of Cæsar. The same applies to *g*. The Greeks and Romans made it always hard. But just as we say Genesis and gymnastics, so we may speak of *Geum*, *Erigeron*, and *Gyneria* as if they were spelt with a *j*.

The spelling and the form of names is also a source of difficulty to gardeners, for those who undertook the task of adapting classical words for botanical

use very often, either through ignorance or wilfulness, disregarded classical usage. Proper names sometimes underwent strange transformations to fit them for international use. One does not, for example, at once perceive that *Stransvæsia* commemorates Mr. Strangways, but the pronunciation of this latter name would prove a serious difficulty to the botanists of many foreign countries. It is, however, easier to criticize what our predecessors have done than to change it, so we must just accept it. It is an accepted convention in modern times that the Greek *u* should be transliterated into *y*; thus, we write and pronounce *polu* as *poly*. It is now becoming usual to drop the diphthongs *æ* and *œ*, and to write *Spirea*, *Crategus*, and *Peony*.

The question of the gender of plants is a puzzling one. At an early stage in the development of language, when the untutored imagination of our forefathers endowed inanimate objects with life, genders were introduced into substantive words and their qualifying adjectives to indicate sex. Objects possessed of strength and majesty were regarded as masculine, while those characterized by grace, tenderness, and gentleness were made feminine. Thus the Greeks and Romans called the sun "he" and the moon "she." An object with changing moods, like the sea, sometimes strong and fierce, sometimes playful and smiling, was neuter. The instinct of sexual affection often determined gender. Thus, sailors and engineers, who control and get fond of their ships and their engines, call them

"she." I have no doubt that if the sailors and engine-drivers were women, they would call them "he." This is all very well in poetry and colloquial talk, but in scientific nomenclature it is wholly absurd and mischievous.

But no old language is properly constructed. Languages were not made by a committee of linguistic experts on scientific principles. They grew up through long ages in the mouths of ignorant, careless, and indolent people, peasants and traders, and all languages, living and dead, are filled with illogical absurdities and inconsistencies. That is what makes them difficult. There is but one properly constructed language in the world—Esperanto. It was created by a man of genius who knew what he was about. It is beautiful, precise, and expressive. Its grammatical rules, which are few and simple, have no exceptions, and there are no irregular forms. It is consequently extraordinarily easy to learn. And, as we might expect, it has no foolish distinctions of gender apart from sex. The English language, too, is superior to most others in this respect. We may call the sun and moon "he" and "she" if we are in a poetical mood, but a German is forced to do so as the Greeks and Romans were, only he makes the sun "she" and the moon "he." And in plant names the student has to burden his memory with the fact, for which there is no reason, that a tree in Greek, *dendron*, is neuter, while in Latin, *arbor*, it is feminine. And he is obliged to make the qualifying adjective agree with it. A tall

tree in Latin is *alta arbor*, not *altus* nor *altum*. In Esperanto he does not trouble his head with such folly, and a tall man, a tall woman, or a tall chimney is just *alta*.

The Romans, then, as a rule regarded trees as feminine, and in names derived from their language we are obliged to do the same. Therefore we have to make the specific adjectival name correspond. The Copper Beech is *Fagus purpurea*, not *purpureus*. But we speak of *Rhododendron ponticum* and *Philadelphus grandiflorus* because the Greeks looked on those shrubs as neuter and masculine respectively.

For the sake of unlearned readers I may add the rules by which to know the correct terminations of specific adjectival names. There are four Latin forms ending in *-us*, *-is*, *-er*, and *-ens*, as *albus*, *gracilis*, *niger*, and *splendens*. The masculine, feminine, and neuter of these are: *-us*, *-a*, *-um*; *-is*, *-is*, *-e*; *-er*, *-ra*, *-rum*; *-ens*, *-ens*, *-ens*. Generic commemorative names are always feminine, and usually end in *a*, as *Buddleia*, from Mr. Buddle. Specific commemorative names end in *-i* or *-ii*, which is the sign of the genitive of nouns ending in *-us* or *-ius*. Thus, *Buddleia Colvillii* is the Buddleia of Colvilliis or Colvill. Or an adjective is coined ending in *-ius* or *-anus* or *-ianus*; thus *Gladiolus Mortonius*, *Dracæna Robinsoniana*, *Dendrobium Jamesianum*.

In the following pages an attempt is made to classify generic names according to their origin and meaning.

A caution is, however, necessary. We must not accept all the derivations given by etymologists as certain. Etymology is not an exact science. It has been explored with great care and research by accurate and learned scholars. But the origin of many words is so obscure that they have very frequently yielded to the temptation to supplement their sure conclusions with conjecture. Many derivations given in dictionaries seem so far-fetched as not to be easily credible, and we are further led to doubt when we find different authorities giving totally different accounts of the same word. On the other hand, it is certain that many words are descended from ancient words to which they bear no resemblance whatever. Who would imagine that wig is derived from the Latin *pilus*, or stranger from *ex*? But neither does similarity nor even identity of form or sense prove kinship. Who would guess that there is no etymological connection between sorrow and sorry, or between male and female, or between bell and belfry, or between isle and island, or between trifle and trivial, or, strangest of all, between propose and proposition? Identity of spelling does not prove identity of origin. A policy of insurance has, etymologically, nothing to do with a national policy, nor the noun prize, a reward, with the verb to prize, meaning to value. Thus, to recur to Botany, Primrose* is not connected

* *Primrose*, though the French have *prime rose*, and in Latin *prima rosa*, is really from Middle English *primerole*, a diminutive form of Low Latin *primula*, from *primus* (first),

with Rose, nor Gooseberry with a goose, nor the Box Tree with box, a chest. Surprising facts like these add a charm to the study of philology, and Botany has its full share of them.

as being an early flowering plant. *Rosemary* is *Ros marinus*, sea-dew, from some fancied connection with sea-spray. *Tuberose* is from the Latin adjective *tuberosus*, having a tuber.

NAMES WHOSE MEANINGS ARE NOT KNOWN

MANY plant names come down to us from a dim antiquity, and no one now can say why they were originally given. No doubt the people who gave them had some reason for doing so, but it is lost for ever. Often we can tell in which language a name arose. We know that *Syringa* was Persian, *Jessamine* Arabic, and *Lily* Celtic. But what those names meant thousands of years ago we shall never discover. In the following list I give in some cases conjectural explanations based on the root of the word being found in some cognate language in a known word. But these must be taken as mere guesses.

ARABIC.—*Abutilon*, *Artichoke*, *Aloe*, *Berberis*, *Cinnamon*, *Datura*, *Doronicum*, *Myrrh*, *Ribes*, *Saffron*, *Sumach*.

PERSIAN.—*Asparagus*, *Lilac*, *Mezereum*, *Musk*,* *Myrtle* (perhaps cognate with *Myrrh*, the wood being fragrant), *Orange* (originally *naranj*; the initial *n* was lost in passing through the Italian).

EGYPTIAN.—*Arum*, *Papyrus* (from which our word “paper”).

GREEK.—*Aloe*, *Balm*, *Blechnum*, *Cactus*, *Canna*, *Carrot*, *Ceanothus*, *Cedar*, *Celery*, *Cercis*, *Clethra*,

* Nutmeg is the Musk nut. The *mug* is from old French *muge*, from Latin *muscus*, from Persian *musk*.

Cneorum, Colutea, Crinum, Crocus, Hellebore, Hedsarum, Larix (from which is *Larch*), *Linum* (from this word comes line, linen, lineage, and linnet—*i.e.*, a bird that feeds on Flax-seed), *Lotus, Mentha* or *Mint, Melon,* Mulberry*—*i.e.*, the berry of the Morea, the Greek name of the tree (it frequently happened that the *r* and *l* were interchangeable, as *Pepper* from *Pippala*, *Plum* from *Prunus†*); the southern part of Greece is called the Morea, as shaped like a Mulberry leaf—*Nemesia, Olive, Ornus, Pea,‡ Rose, Rue, Eryngium*.

LATIN.—*Alnus* (cognate with *Alder*), *Armeria* (Thrift), *Arundo*, *Beet*, *Cucumber* (from *Cucumis*), *Elm* (from *Ulmus*), *Dictamnus*, *Endive* (from *Intubus*), *Fig* (from *Ficus*), *Fraxinus*, *Genista*, *Gourd* (from *Cucurbita*), *Hibiscus*, *Juniper*, *Laburnum*, *Laurel* (from *Laurus*), *Lupin*, *Oleander* (from a Low Latin name *Lorandrum*, which may be compounded of lauro-dendron, the Laurel Tree, a hybrid word), *Pear* (from *Pirus*), *Poppy* (from *Papaver*), *Rape*, *Service* (from *Sorbus*), *Tilia* (the Lime), *Vaccinium* (the Whortleberry), *Viola*, and *Violet*.

* *Melon* is simply Greek for apple. From it comes *marmalade*, which has descended to us through Portuguese and French from *melimelum*, or honey-apple.

† Compare *colonel*, from Latin *columna*, a column, which in Spanish is turned into *coronel*, and this form is common in Elizabethan English. This accounts for our pronunciation “kurnel.”

‡ *Pea* is a false singular, arising from the mistaken notion that *pease*, from Greek *pisos*, was a plural noun; and so *pease soup* came to be spelt *pea soup*.

JAPANESE.—*Akebia*, *Aucuba*, *Fatsia*, *Gingko*, *Skimmia*, *Tsuga*.

BRAZILIAN.—*Petunia*.

PERUVIAN.—*Yucca*, *Mahogany*.

NORTH AMERICAN INDIAN.—*Catalpa*, *Hickory*, *Sequoia*.

HAYTIAN.—*Potato*.

MALAYAN.—*Bamboo*, with Latinized form *Bambusa*.

MEXICAN.—*Tecoma*, *Tomato*, *Cocoa*.

CHINESE.—*Loquat*.

ANGLO-SAXON.—*Apple*, *Ash*, *Aspen*, *Barley*, *Beech* (Skeat thinks that from this word came “book,” the original books being writing scratched on a beechen board), *Birch*, *Broom*, *Briar* (the word “briar pipe” is quite different; it is from the French *Bruyère*, Heath, as made from Heather roots found in the Jura mountains), *Cress*, *Fir*, *Furze*, *Gorse*, *Whin* (this word was used generally of weeds, showing the dislike of the people to this gorgeously flowering shrub just because it gave itself too generously), *Hazel*, *Hemlock* (the “lock” is the A.S. “leek,” a general word for a plant, as in *Garlic*, *Charlock*), *Holly* and its cognate word *Holm Oak*, *Ivy*, *Maple*, *Oak*, *Oats*, *Rye*, *Ragwort* (“wort” meant originally a root; it is allied to the Greek *rhiza* and Latin *radix*; we find it in “Mangel-wurzel,” and in “orchard” or “wort-yard”), *Willow*.

MEDICINAL

THERE is quite a large class of plants which in times long past received their names from their medicinal qualities, real or supposed. Just as the ancient astronomers studied the heavenly bodies because they believed that they influenced the destinies of mankind, so the interest that botanists took in plants to a large extent arose from their use as medicines. The value of a plant was estimated by its usefulness to man, either as food in health or as medicine in sickness, and it was believed that as the Creator had afflicted His creatures with divers diseases, He had equally provided for each disease some plant which formed its remedy. The business of science was to discover for each ailment the corresponding plant to cure it, and we can imagine how many lives were sacrificed in the search. But they went farther than this, and held that in each plant there was some visible indication of the part of the human body whose disease it was designed to cure. This was the curious doctrine of Signatures, and it was firmly believed by the herbalists of those times. The spotted leaf of one plant reminded them of the lungs. They thus inferred that it must be a remedy for consumption, and called it *Pulmonaria*. A plant with swellings at the joints must be good for gout. The Mistletoe grew downwards. It was therefore plain that it was marked out as a specific

for epilepsy or “falling sickness.” The Walnut resembled the human skull, which proved that it could cure all diseases of the head, whether of the scalp or the brain. But the height of absurdity was reached when the conclusion was drawn that Fern seed, being so small that the naked eye could hardly discern it, must have the property of rendering a person who held it invisible. We find it in Shakespeare: “We have the receipt of Fern seed; we walk invisible.” So also the yellow Celandine was supposed to cure jaundice, Wood Sorrel (which has a heart-shaped leaf) to cheer the heart, Liverwort to be good for the liver, and so on.

These strange beliefs were held for centuries in good faith by men of learning and sense. But by degrees the practice of herbalism fell into the hands of quacks, who preyed on the current credulity, and finally disappeared with the advance of true science.

The following are some names derived from supposed medicinal virtues: *Althea*, from *altho*, to heal. *Alyssum*, from *a*, not, and *lussa*, a rage, because it was supposed to calm canine madness. *Anchusa* is from *ancho*, to press tight. Gerard says it is “most singular in deep punctures, or wounds made with thrusts”—that is, it closes a gaping cut. *Aristolochia* means “best in parturition”; it was considered useful in childbirth. *Asplenium*, from *a*, not, and *splene*, the spleen, used for spleen disorders. *Anagallis*, from *anagalao*, to laugh, was believed to cure sadness. *Clerodendron* is said to be from *kleros*, a lot (whence come “clergy”—*i.e.*,

those whose lot is a sacred one), and *dendron*, a tree—that is, a tree with uncertain medicinal qualities. *Geum* is from *geuo*, to give a taste of, to stimulate, the roots having a property like that of quinine. *Henbane* may be called from its injurious effects on poultry. It is, however, possible that its name is a corruption of Hogbean, which is the English of its botanical name, *hyoscyamus*. *Hippophae*, the Sea Buckthorn, means “killing horses.” *Feverfew* (*Pyrethrum parthenium*) is an anglicized form of *febrifugia*, that which drives away fever. *Lysimachia*, or *Loosestrife*, was counted a sedative, calming hot tempers; *Malva*, the *Mallow*, from *malakos*, soft (Latin *mollis*), was valued as an emollient; and *Nepenthes*, the Pitcher plant, from *ne*, not, and *penthos*, grief, was supposed to assuage grief. On the other hand, the seeds of *Lathyrus*, the Pea, from *thouros*, impetuous, with the intensive prefix *la*, were counted to be an irritant. *Belladonna*, which means “beautiful lady,” was employed in Italy by the ladies to give softness to their eyes and to remove freckles. *Cardamine*, from *kardia*, the heart, and *damao*, to overpower, was either a heart medicine or a heart poison. *Panax*, from Greek *pan*, everything, means “a universal remedy,” so does *Pancratium*; *Potentilla* was potent to cure all diseases; and *Salvia*, from which our word *Sage*, from *salvus*, safe, contains the same idea. *Prunella*, Self-heal, is from the German *Breaune*, a disease of the jaws, which it was believed to heal. *Plumbago* is said to have been a remedy for the disease of the

eyes called *plumbum*. But may it not have been from the lead colour of its flower? *Pennyroyal*, *Mentha pulegium* (not Pennywort, which is a name given to four different plants from the shape of their leaves), is a singular corruption of the old name, Pulial Royal. It is so called from *pulex*, a flea, as it was esteemed an efficacious protection against those little pests. *Santolina*, from *sanctum linum*, holy Flax, is said to have derived its name from its medicinal powers. *Saxifrage*, which means "broken stone," one would naturally explain by its habitat. It is said, however, to refer to its efficacy against stone in the bladder. *Scilla*, from *skullo*, to tear or to annoy, was called from its poisonous properties. *Selago*, with its diminutive *Selaginella*, is Celtic, meaning salutary for the sight. *Scrophularia* explains itself. *Scabiosa* was a remedy for the itch, *scabies*. *Solanum*, from *solor*, to solace, was believed to have soothing qualities. *Solidago*, Golden Rod, the national flower of the United States, from *solido*, to unite, was used for cuts. It is interesting to know that the Latin word *solidus* was used in later times for a coin, which is a solid disc of metal. The s in £ s. d. stands for *solidi*. From this comes the Italian *soldo* and French *sou*. And a soldier was one who fought for payment, a *soldo* a day. *Statice*, the Sea Lavender, is from *sto*, to stand or to stop, from its astringent qualities. *Spurge* is from *expurgo*, to cleanse away, from its use in destroying warts. *Stitchwort* was esteemed as a remedy for a stitch in the side. *Reseda*,

Mignonette, is from *resido*, to abate, from its virtue for bruises. *Wormwood* has no reference either to worms or wood. Its German form is *Vermuth*, and its literal sense is "ware mood"—*i.e.*, preserver of the mind, a safeguard against madness. *Tansy* is a shortened form of *athanasia*, the Greek for immortality, from its supposed virtue to prolong life. *Eryngium* is from a Greek word meaning "to belch," Dioscorides says because it was a remedy against flatulence. *Tussilago*, or *Coltsfoot*, comes from *tussis*, a cough. Pliny states that it had been in use from remote times for curing colds, the fumes of the burning weed being inhaled through a reed. And some have suggested that *Coltsfoot* is properly *coldswood*, but this is unlikely. A good many English folk-names of plants arose from the supposed likeness of the leaf to the foot of an animal, and contained the syllables "hoof," "cloot," and "foot." Such names are given to the Violet, the Marsh Marigold, the Burdock, and the yellow Water Lily.

FANCY

WE may take as another class of names those which contain some pretty fancy, or which express the delight which flowers inspired in lovers of fields and gardens. Many of these need no explanation, such as *Buttercup*, *Kingcup*, *Snowdrop*, *Eyebright*, *Bluebell*, *Lady's Smock*, *Lady's Mantle*, *Traveller's Joy*, *Forget-me-not*, *Heart's Ease*, *Pansy* (from the French *pensée*, a thought; Ophelia said, "There's Pansies, they're for thoughts"), *Sweet William*, *Morning Glory*, *Sunflower*, *Speedwell*, *Maiden Hair*, *Honesty*, *Thrift*, *Aaron's Rod*, *Solomon's Seal*, *Star of Bethlehem*, *Venus' Looking-glass*, and a host of others. *Marigold* is the gold fit for the Blessed Virgin, and so *Clematis* is in some parts called *Virgin's Bower*. *Iris* is the rainbow (corrupted into *Orris*), which also suggested a name for the beautiful circles in our eyes. *Daisy* is the day's eye or the sun, and *Bellis*, its botanical name, means beautiful. How aptly *Monk's Hood* describes its flower! *Philadelphus* means brotherly kindness, and *Agapanthus* the flower of love. What beautiful names! *Aster* is a star (so "astronomy," or the laws of the stars) *Nightshade* was thought to be a poisonous plant, "loving darkness rather than light, because its deeds are evil." In the bloom of *Passiflora*, or the *Passion Flower*, the pious imagination of our forefathers

detected the hammer and nails of the Crucifixion. The *Judas Tree* was supposed to be the tree on which Judas hanged himself, because the red flower-buds, coming before the leaves, looked like drops of blood. *Tropæolum* is from the Greek *tropaion*, a trophy, as worthy to be borne by a conqueror. This word comes from *trepo*, to turn, because the foe turned and fled. (Thus the tropics are where the sun appears to turn in his course, and a trope is a turn or figure of speech.) *Juglans*, the Walnut, is *Jovis glans*, the nut of Jupiter, so excellent is it. The *Nectarine* is from nectar, the drink of the gods, as ambrosia was their food. Bishop Walsham How once wrote a little poem addressed to *London Pride*, rebuking it for that bad quality. A lady called his attention to the fact that the name did not mean that the plant was proud, but that London was proud of it, whereupon the Bishop wrote a second charming poem apologizing to it! *Agave*, the Aloe, means admirable. *Calla* is the beautiful. *Cosmos* is the ornamental. *Clianthus* is the glorious flower. *Dianthus* is the divine flower. *Diospyros*, the Date Plum, is the divine Wheat—that is, celestial food. *Chionodoxa* is the glory of the snow. *Callistemon* is the most beautiful stamen, and *Callistephus* the most beautiful crown. *Asphodel* means the unsurpassed. From this is derived *Daffodil*. The initial *d* may have come in through the French *Fleur d'affrodille*. *Eucharis* means pleasing, worthy of praise. *Euonymus* is a strange word. Literally, it means well-named or honourable. But among the

more superstitious of mankind there is a constant dread of unseen powers around them, often imagined to be jealous and malignant. It is therefore considered wise to speak respectfully of them, and in various lands we find instances of this. The Greeks, for example, thought it better to call the Furies Eumenides, or the well-meaning. And so Cape Tormentoso, or Stormy Cape, became the Cape of Good Hope. The Irish call the fairies "the good people," even though, or rather because, they suspect them of mischievous intentions. And so the name Euonymus was given to the left or ill-omened hand, and it is thought to have been applied to the tree because its berries are poisonous. On the other hand, it is quite possible that it may have been a title of genuine admiration. *Gazania* is believed to be from *gaza*, a word of Persian origin, used by the Greeks to express richness. *Ononis*, the Rest Harrow, means delighting donkeys. *Quercus*, the Oak, is said to be derived from the Celtic *quer*, fine, and *cuez*, a tree. *Marguerite*, the Ox-eye Daisy, is from the Greek word for a pearl. *Verbena*, *Verbain*, is a Latin word used to signify a sacred bough, which they applied to Laurel, Myrtle, or Olive, such as were used in religious processions. *Helichrysum* means sun of gold, a name full of poetry. *Hemerocallis* is the beauty of the day. And, lastly, an unassuming, drab-coloured, fragrant favourite of our gardens is *Mignonette*, or little darling. It was probably some Frenchwoman who called the little flower that, and the name caught on, and who,

among its myriad lovers, could now bear to call it *Reseda*, even if you add *odorata*? Names like this bring us into touch with people of distant lands and far-off ages, who, like ourselves, loved the sweet and beautiful things of nature.

COMMEMORATIVE

A VERY large number of plants are named in memory of people of greater or less distinction. Some of them have come down to us from ancient times, some are mediæval, but the majority are modern. These names are applied to the genera, in still greater numbers to the species, and in countless thousands to the varieties; but of these last we take no notice, as they are not botanical names. Of generic commemorative names, some refer to people of whom we know nothing, but some to men whose fame, like stars, illuminates past ages. Such are *Aristotelia*, from Aristotle, the celebrated philosopher, and *Wellingtonia*, from the Iron Duke. But most of them commemorate notable botanists or patrons of horticulture, who deserve to be honoured and remembered by after-generations of flower-lovers. I must content myself with giving in a bare list a small selection of such names, choosing those of fairly well known plants.

COMMEMORATIVE NAMES.

Abelia, *Alstromeria*, *Aubrieta*, *Azara*.

Begonia, *Benthamia*, *Bignonia*, *Bocconia*, *Brownia*, *Buddleia*.

Camellia, *Carpentaria*, *Cassinia*, *Choisya*, *Clarkia*, *Collinsia*, *Correa*.

Dahlia, Desfontanea.

Escallonia.

Fabiana, Forsythia, Francoa, Freesia, Fuchsia.

Gaillardia, Garrya, Gardenia, Gaultheria, Gentiana, Gerbera, Gloxinia, Godetia, Green Gage, Grevillia, Gunnera.

Halesia, Heuchera.

Incarvillea.

Jamesia.

Kalmia, Kerria, Kniphofia, Koelreuteria.

Lachenalia, Lapageria, Lavatera, Leycesteria, Lonicera, Lobelia.

Mahonia, Mathiola, Monarda, Montbretia, Muhlenbeckia, Magnolia.

Nicotiana.

Parrotia, Paulownia, Pernettya, Poinsettia.

Ramondia, Rodgersia, Romneya, Robinia, Rudbeckia.

Salisburia, Sarracenia.

Thunbergia, Torenia, Tradescantia.

Vallota.

Weigelia, Wistaria.

Zinnia.

PLACE OF ORIGIN

WHEN we find plants called after countries or districts we learn the place from which they came, or where they were found in remarkable abundance. And we may with certainty infer that the name did not arise there, but in some other place to which they were introduced. *Currants*, for example, are called after Corinth, a Greek city, but the Corinthians would never think of giving them that name. Thus we glean some interesting information about the origin and history of the tree. *Aconite* was plentiful round Acona, in Italy.* *Arabis* was first recorded as being an Arabian plant; *Agaricus*, the genus of Fungi to which mushrooms belong, was plentiful near Agaria, a town in Sarmatia; *Bergamot* is from Bergamo in Italy†; the *Araucaria* is called after the name of a native tribe in Chile, where it was first found. The first syllable of *Chestnut* is derived from Castana, a city in Greece. *Colchicum*, the Meadow Saffron, sometimes called the Autumn Crocus, though not akin to the Crocuses, is from Colchis, famous in Greek legend. *Cherry* ought to be *Cheris*, which was erroneously supposed to be plural. It comes through the French *cerise*, from

* Skeat, however, derives it from Greek *en akonais*, from its growing on steep, sharp rocks.

† But the Bergamot Pear is from the Turkish *beg armudi*, the Prince's Pear.

cerasus, and was called from Kerasos, a city in Pontus, whence it was brought to Rome by Lucullus, whose splendid banquets became proverbial. The word *Quince* comes also through the old French *coin*, which was from the Italian *cotogna*, which was from the Latin *Cydonia* (its botanical name), because Cydonia, in Crete, was its native place. The *Cytisus*, or Broom, came from Cythrus, an island of the Cyclades, near Greece. The *Damson*, as also the *Damask Rose*, came from Damascus. *Iberis*, Candytuft, is from Iberia, the ancient name of Spain, where it abounds. *Nepeta*, Catmint, is said to come from Nepi, a town near Rome. The *Pampas Grass*, of course, comes from the pampas or plains of South America. *Parnassia*, or *Grass of Parnassus*, was called after the holy mountain in Greece where the Delphic Oracle was situated, where, from its elegance, it was fabled to have sprung. The *Peach* comes through the old French *pesche*, from the Latin *persicum*—that is, the fruit of the *Persica arbor*, because it came from Persia. *Rhubarb* is from the Greek *Rheon barbaron*, or the Rha plant from the barbarous country. The Rha took its name from the River Rha, now the Volga. The Greeks called all foreigners who did not speak the Greek language *barbaroi*, or stammerers. *Barbaroi* was their way of contemptuously expressing the strange sound of an unintelligible tongue, just as the Dutch in South Africa called the natives in derision Hottentots. The word *Shallot*, too, has a queer history. We get it from the old French *eschalote*, which was a variant

of *escalogne*, which came from the Latin *ascalonia*, which came through the Greek from Askelon, a city of the Philistines, of which we read in the books of Judges and Samuel.

What is the origin of the name *Spruce Fir*? This word is the same as spruce, meaning neat, trim. It was an old form of Prussia. Hall's "Chronicle" tells us that a particular kind of fashionable dress was that in which men "were appareyled after the manner of Prussia or Spruce." Thus, *Spruce Fir* means Prussian Fir. Prusse, formerly Pruce, is the French for Prussia, and the s seems to have been prefixed for emphasis, just as "plash" became "splash," and perhaps "lash" "slash." *Citrus* is from Citron, a town in Palestine.

There are, however, pitfalls which we must avoid. The *Guelder Rose*, *Viburnum opulus*, is not called, as one might suppose, from the province of Gelderland, but was originally the Elder Rose. The Viburnums are akin to the Elders, and the g was prefixed by a pure error. The *Jerusalem Artichoke*, *Helianthus tuberosus*, is, of course, no more an Artichoke (*Cynara*) than the Guelder Rose is a Rose. But neither has it anything to do with Jerusalem. It is a Sunflower, *girasole*, and popular ignorance transformed this word into Jerusalem, just as British sailors turned Bellerophon into Billy Ruffian. On the other hand, it is likely that *Spinach* comes, not from *spina*, a thorn, because its fruit is prickly, but from Hispania, Spain, since the Arabs call it *Hispanach*. *Tobacco* may perhaps be

called from the Island of Tobago in the West Indies, but some think that it is from *tamboku*, the word for a pipe in Hayti. And *Candytuft* may have reached us from Candia, the modern name of Crete. The *Walnut* is not the nut that grows on walls, but the "foreign nut." *Wal* here is the same as in "Wales." All Teutonic people called tribes not of their blood or speech Welshmen, or foreigners, and we find this *wal*, or in the Romance *gal*, in Cornwall, Gallia, the ancient name of France, and in those of many other places. *Hollyhock* is the Hock indigenous to the Holy Land, *Hock* being the Celtic name for Mallow. It has also been suggested that it derived its name from the Holy Island, Lindisfarne, or from the saint of that isle, after whom it was called St. Cuthbert's Kale.

USE

A GOOD many plants were named from some useful purpose to which they were applied. *Carpinus* is said to have been a Celtic word meaning wood for the head, referring, as does its English name *Horn-beam*, to its use for making yokes for oxen. *Carduus*, the Thistle, is called from its use in carding wool. The derivation of *Capsicum*, red pepper, is given by the Oxford Dictionary as from *capsa*, a case, referring to the capsule for the seed. It is more probably from Greek *kapto*, to swallow greedily, from its use as a condiment. So *Mustard*, because for this purpose it was mixed with *mustum*, or new wine.

Linnæus gave the etymology of *Cheiranthus*, the Wallflower, as from *cheir*, a hand, and *anthos*—that is, a flower for the hand, as making a good nosegay. The Arabic name, however, is *kheyry*, and this is more likely the original of *cheir*, the *anthos* being added to give it a Greek appearance. *Hawthorn* is from the Anglo-Saxon *haga*, a hedge or fence. We have the same word in “ha-ha,” a sunk fence. *Galega*, or Goat’s Rue, is from Greek *gala*, milk (“Galaxy,” or the Milky Way), because it was supposed to be good for milking goats. *Fagus*, the Beech, is said to be from the Greek *phago*, to eat, because its seeds are edible (at least, by pigs!). *Lavandula*, *Lavender*, is from *lavo*, to wash, because

it was laid among freshly washed clothes. (We have this word in lavatory, laundry, deluge, etc.) *Ligustrum*, the old Latin name for the Privet, is supposed to be from *ligo*, to tie, from the use made of its flexible shoots. *Privet* refers to its use in making hedges. It seems to be a corruption of *primet*, from an old word to prime or clip trees. This word is connected with prim, neat, and comes from prime, first, the sense being first grown, and therefore small and delicate. So, at least, says Skeat, one of our greatest etymological authorities. I confess doubts. *Phlomis* is said to be from *phlox*, a flame, because the down on its stems was used for making wicks. A more certain derivation is *Phormium*, the New Zealand Flax, from *phormos*, a wicker basket. *Flax* is an Anglo-Saxon word allied to Greek *pleko*, to weave. *Sambucus*, the Elder, is said to be from a musical instrument, *sambuke*, made from its wood. In the same way the *Spindle Tree*, *Euonymus*, got its name from the spindles (used in spinning) which its wood supplied. *Thuja*, or *Thuya*, is a Greek name from *thuos*, incense (see Rev. xviii. 12), as providing the resin used for that purpose. *Thuos* is from *thuo*, to offer a sacrifice. It then came to mean anything fragrant, and so *Thyme* got its name. *Viburnum* and *Vinca*, the Periwinkle, have the same root *vi*, which contains the idea of binding or winding round something. So also *Vitis*, the Vine. From this root *vi* also came the Greek *oine* and *oinos*, whence *Vine* and wine.

CLASSICAL NAMES

WE may group together a few names that come down to us from classical and mythological lore. Most of them were given in ancient ages when men still believed these myths, but some by scholars of modern times, who perhaps liked to display their learning. Few of them, if any, have discernible appropriateness to the flowers to which they belong. But these old legendary stories are often beautiful, and these names recall the simple beliefs of far-off times when the imagination of primitive men peopled the woods and streams and mountains with invisible, or rarely visible, beings—fairies, nymphs, satyrs, and gnomes. Thus the *Andromeda* was called after the Ethiopian Princess who was chained to a rock that she might be devoured by a sea monster. Linnæus fancifully found a resemblance to her fate in the habitat of the little Andromeda plants which “grew on turfy hillocks in the midst of swamps frequented by toads and other reptiles.” *Amaryllis* was the pastoral sweetheart sung by Theocritus and Virgil. We remember Milton’s line, “to sport with Amaryllis in the shade.” The *Artemisia*, Wormwood, reminds the scholar of the Queen who erected the famous mausoleum in memory of her husband. *Achillea*, Milfoil, is called from the Greek hero at the siege of Troy. The Centaur Chiron, fabled to have been skilled in

medicine, was said to have used this plant as a cure. The Centaurs were half men, half horses, and Ovid tells us that another plant, called *Centaurea*, after this Chiron, cured a wound in the foot. *Carya*, the Hickory, was the Greek name for the Walnut. It is said to have been called after a Princess who was changed by Bacchus into a Walnut tree. *Cypripedium*, or Lady's Slipper, contains the word *Kupris*, which was the Greek name of Venus, goddess of love, from whom the island of Cyprus was named because it was one of the chief seats of her worship. The lip of the flowers of this tribe of orchids is really like a slipper. *Daphne* was the daughter of a river god loved by Apollo. To escape him she changed into a Laurel. *Drus* was the Greek word for an Oak, and so the nymphs of the woods were called Dryads. The leaves of the little plant *Dryas octopetala* resemble those of an Oak, and so Linnaeus, in a playful mood, made it the badge of Virgil's Dryades, after the manner of the Scottish clans, and gave it its name. *Heracleum*, the Cow Parsnip, was consecrated to Heracles (Latin Hercules), the mythical Greek hero. *Hyacinth*, in the Greek fable, was a Prince who was loved by Apollo, the sun, and Zephyr, the west wind. He preferred Apollo, so Zephyr killed him with a quoit. His blood became a flower, and it was fancied that the petals were inscribed with his name. *Helenium* is called after the lovely Helen, cause of the Trojan War. *Inula* is said to be a corruption of *Helenium*. *Narcissus* was a youth who saw his face mirrored in

a pool, and fell in love with it. He vainly tried to kiss it, and was drowned, so he was changed into the flower. The *Nerine* Lily is called after Nereis, a sea nymph. The Water Lily, *Nymphaea*, derives its name from the fabled maidens inhabiting the rivers and woods. The *Osmunda* Fern is said to be called after a Celtic deity, and *Tagetes*, of which the African Marigold is a species, after a Tuscan deity. *Teucrium* is from Teucer, a Greek hero in the siege of Troy. *Samphire* is from the French *Herbe de Saint Pierre*, and *Filbert* is named after St. Philibert, the nut being ripe on his day, August 22. And so, too, *Lady's Bedstraw* and *Lady's Slipper* are called after the Virgin Mary. The *Veronica* was probably named after the legendary maiden who, it was believed, offered her handkerchief to our Saviour on His way to Calvary. He wiped the sweat from His face, and when He returned it, it bore His likeness. *Vera ikonika* means the true image, and the maiden received that name. A handkerchief which is supposed to prove the truth of this story is preserved in St. Peter's in Rome. The *Peony* is from Paian, who was in mythology the physician of the gods. The name was afterwards transferred to Apollo, the god of song, and so a song of triumph after victory was called a pæan.

LIKENESS TO ANIMALS

QUITE a number of plants have derived their names from fancied resemblance to parts of animals. *Antholyza* means "the raging flower," because it reminds us of the face of an angry beast. *Antirrhinum* is from *anti*, like, and *rhis*, a nose, from the likeness of the flower to a snout. We have this word in *rhinoceros*, which means a snout of horn. *Snapdragon*, its English name, has the same idea. *Bugloss* is the tongue of an ox. *Bupleurum* is the rib of an ox, referring perhaps to the ribbed leaves of some species. *Columbine*, *Erodium*, *Geranium*, and *Pelargonium* have been explained (p. 3). *Cranberry*, too, is said to refer to the crane, I know not how. *Celandine* is from *chelidon*, a swallow; the reason is equally mysterious. Pliny suggested two reasons, neither very convincing. He says: "The brute animals have been the discoverers of certain plants; among them we will name Chelidonia first of all. It is by the aid of this plant that the swallow restores the sight of the young birds in the nest, and even, as some people will have it, when their eyes have been plucked out." And again: "These plants (the Greater and the Lesser Celandine) blossom both of them at the arrival of the swallow, and wither at the time of its departure." The appropriateness of *Cockscomb* is obvious. *Coltsfoot* refers to the shape of the leaves. So do *Hart's Tongue* and *Cynoglossum*, reproduced in its English

name *Hound's Tongue*. This Greek word, *kuon*, is in "cynic"—that is, one who behaves like a dog, I suppose with the contemptuous demeanour towards you of someone else's dog. It also comes into *Cynara*, the Artichoke, because the spines on the involucrum were likened to dogs' teeth. *Fern* is from an ancient Sanskrit word *parna*, meaning a feather. *Lycopodium*, or Club Moss, is the wolf's foot. *Lupin* is from *lupus*, a wolf. No one seems to know why the Romans called it so. *Ricinus*, the Castor Oil Plant, means a tick, because its seeds resemble that horrid pest. *Tigridia*, the *Tiger Lily*, got its name from the flowers, which are spotted like a tiger. *Mimulus*, the *Monkey Plant*, is called from the fancied resemblance of the flower to the grinning face of an ape. The Greek word for an imitator or an actor was *mimos*, and this gave them a name for the monkey, because he mimics man. The same idea is contained in *Mimosa*, because some species, *M. pudica* and *M. sensitiva*, by the irritability of their leaves, which close at a touch, imitate animal sensibility.

In this section, too, we have pitfalls. We must not, for instance, suppose that *Gooseberry* has anything to do with geese. "Goose" here is a corruption of the old French *groise*, or hairy. *Foxglove* is probably *Folk's Glove*—that is, the glove of the folk or fairies.* Nor does *Dogwood*, or the *Dog Rose*,

* Some have derived "fox" here from the Latin *fuscus*, tawny or swarthy. But *fucus* would not well describe the colour of the Foxglove flower, and it is not likely that our

resemble a dog. The name was given in contempt, implying a poor sort of wood or Rose, and recalls the time when the dog was not as valued a friend of man as he is now. The word in "dog tired," "dog cheap," is different. It is there just the Swedish word for "very." "Dog watch" at sea is different again. It is there the "Dodge watch." Parallel with Dog Rose is *Toadflax*—that is, a spurious or contemptible kind of Flax, although it is not really a Flax at all.* A *Bulrush*, on the other hand, is a strong and sturdy sort of rush, like bulldog, bull frog. *Horse-chestnut* is a puzzle to me. "Horse" seems here to have the same sense as in *Horse-radish* or Horse-leech, where it is a form of hoarse or coarse. We find it in such words as "horse-play," a "horse-laugh." The Horse-chestnut would then be contrasted with the Sweet or Spanish Chestnut, *Castanea sativa* (perhaps from the inferior edibility of its fruit), with which it was supposed to be akin. But the botanical name of the Horse-chestnut is *Æsculus hippocastanea*. *Hippos* is Greek for a horse. How did it get in here? Can this name have been a late one, given after "hoarse" was corrupted into "horse," and was supposed to

Anglo-Saxon ancestors would have coined a hybrid word for a common weed.

* It has been suggested that "toad" here is from an old English word *tod*, a bunch or cluster, from the plant presenting the appearance of a mass of threads like Flax matted together. *Equisetum*, the Horse-tail, which grows on the margins of ponds, is sometimes called Toadpipe, perhaps for the same reason.

refer to the animal? I have seen it stated that in the Middle Ages the nuts were used as a remedy for broken-winded horses, but I suspect that this was conjectured to account for the "horse." In like manner we may reject the explanation that the section of the leaf stem resembles a horse-shoe, or that such a mark is impressed on the back of young branches where a leaf falls. *Harebell*, too, almost certainly has nothing to do with hares. It has been suggested that it means "air-bell," but there is nothing especially airy about the flower. A more probable derivation is that of "har" or "haw" bell, "har" being North Country for blue. The blue Cornflower was the Hardock. King Lear picked Hardocks in the Corn.

HABITAT

I MAY give a few examples of plants which are named after their habitat, or the natural conditions which they love. *Arenaria* grows well in sandy soil. *Arena* is the Latin for sand, and so it was applied to the sanded place where the gladiators fought and wrestlers struggled. The *Anemone*, sometimes called the *Windflower*, because it thrives on windy hillsides, comes from the Greek *anemos*, wind. From this came the Latin *anima*, which signified air in motion, then a breath, and in the masculine form *animus*, the rational soul, then the spiritual life in man. It is most remarkable that in Hebrew, Greek, and Latin the same word stands for wind and spirit (John iii. 8), and possibly in Anglo-Saxon ghost and gust are related. *Convallaria*, the *Lily of the Valley*, is from *convallis*, a valley, and perhaps *rica*, a mantle, as clothing the sheltered vale. *Dendrobium*, a large genus of orchids, is called from *dendron*, a tree, and *bios*, life, being a tree epiphyte. Another large orchid genus is *Epidendron*, *epi* meaning upon. *Philodendron*, which means loving a tree, is also a tree epiphyte, but of another order. *Gypsophila* means loving chalk—that tells us its habitat. *Ranunculus* means a little frog, perhaps because it loves marshy places. *Sedum* is from *sedeo*, to sit, because it sits on rocks and walls. And so in English it is called Stonecrop, because it

grows on stones. *Seakale*, *Crambe maritima*, is the Kale or Cabbage that grows by the sea. *Nemophila* means loving the grove, where it flourishes in its wild state in California. *Salix*, the *Sally*, or Willow, is from an old Sanskrit word meaning water. This still survives in Swedish and Irish. *Myrica* comes from *murio*, to flow, because it inhabits the banks of rivers. *Azalea* is from *azaleos*, dry, because it has the opposite taste. The *Bracken*, or *Brake Fern*, is so called because it grows on rough or broken ground. *Heath*, *Heather*, is from a Teutonic word meaning waste, because it grows on waste ground (the dwellers on heaths were the last to embrace Christianity, hence "heathen").

DESCRIPTIVE NAMES

By far the greatest number of plant names refer to some peculiarity of the plant in its root, or stem, or leaf, or bloom, or seed, or smell, or general appearance. To understand these names is instructive, for they bring to our notice those features which seemed most distinctive to the discoverer, and which we might not have observed.

It must be admitted, however, that those who assigned these names were not always happy in their choice of the characteristic which they selected as best describing the plant. It often related to some very inconspicuous feature, or did not belong to the plant which it described in any marked degree—not more than to scores of other genera. And it frequently happened that the discoverer, who was acquainted with but one species of a genus, pitched on some characteristic of that species which does not belong to many or any of perhaps hundreds of species of the same genus afterwards discovered. It is therefore not characteristic of the genus, and to know its meaning does not help us. There are few sciences in which modern students are more hampered by the ignorance or carelessness of their predecessors than Botany so far as nomenclature is concerned. For a name, once given, is almost irrevocable, and a mistake thus made is perpetuated for ever. On the other hand, many descriptive

generic names do felicitously select a distinctive and salient feature common to the whole genus, and in every case there is a certain interest in knowing why flower-lovers, hundreds or perhaps thousands of years ago, assigned to plants which beautify our gardens and fields and woods to-day names by which they are known in every civilized country in the world.

ABIES, the Spruce Fir, is said to come from Latin *abeo*, to depart, because it springs so straight from the ground. This derivation seems so far-fetched as to be nearly incredible.

ACACIA, thorny, from Greek *ake*, a sharp point (*cf.* acute).

ACÆNA, the same derivation, from the little spines on the calyx.

ACANTHUS, thorny flower.

ACTINIDIA, rayed, referring to the styles.

ADIANTUM, dry. Pliny says because water will not adhere to the fronds.

AGERATUM, said to be from Greek *a*, not, and *geron*, old, because the flowers do not wither (*doubtful*).

AJUGA, unyoked, the calyx being one-leaved.

ALLIUM, Garlic, from Celtic *all*, not.

ALMOND, from *Amygdalus*, the botanic name. This is said to be from the Greek *amysso*, to lacerate, referring to the fissured channels in the nut. The *al* is due to Arabic influence (*cf.* alcoran).

AMARANTHUS, unfading.

AMPELOPSIS, like a vine.

ANDROSACE, from *aner*, a man, and *sakos*, a shield, the anther like an ancient buckler.

ANTENNARIA, from the shape of the seed. *Antenna* was a sail-yard, thence applied to the horns of moths, etc.

ANTHERICUM, from *anthos* and *kerkis*, a rod.

APRICOT comes to us by a strange descent from the Latin *præcoquus*, precocious, early ripe. The Greek borrowed it from the Latin, the Arabic from the Greek, the Portuguese from the Arabic, the French from the Portuguese, and the English from the French. It then, after its travels, emerged as apricock, and finally took the present form. The initial *a* represents the Arabic article *al* in *albarkok*.

ARGEMONE, probably from *arges*, white.

ASPIDISTRA, from *aspis*, a shield, referring to the shape of the stigma.

ASTILBE, *a*, not, and *stilbo*, to shine, inconspicuous flowers.

ASTRANTIA, *anti-aster*, like a star.

ATRIPLEX, *ater*, black, and *plexus*, woven together.

BORAGE, perhaps from low Latin *burra*, a shaggy cloak.

BROCCOLI, an Italian word, plural of *broccolo*, a sprout, diminutive of *brocco*, a skewer or stalk.

BRYONY, from Greek *bruo*, to swell, to grow luxuriantly.

Box, BUXUS, from Greek *puknos*, hard, referring to the wood. This word was then used for anything made of Boxwood, hence a box, also the tap of a barrel, and so to drink was called to booze.

CABBAGE is from Italian *capuccio*, diminutive of *capo*, a head, from Latin *caput*. We still speak of a head of Cabbage.

CALCEOLARIA, from *calceolus*, a slipper, which is from *calx*, a heel, referring to the shape of the flower (a recalcitrant person is one who lifts up his heel against you).

CALENDULA, the Marigold, is said by Pliny to be from *Calendæ*, the first day of the Roman month, on which the calendar for the month was announced, because it flowers in every month of the year. He could hardly have referred to our Marigold, which certainly does not.

CALLIOPSIS, like a Calla, or Lily.

CALOCHORTUS, beautiful Grass, referring to the leaves.

CALYCANTHUS, from the calyx being like a flower.

CAMOMILE, Greek *chamai melon*, or the Ground Apple, from the apple-like smell of the flower (see Germander).

CAMPANULA, a bell-like flower (*cf. campanile*, a belfry, which word, however, has no connection with bell).

CAPRIFOLIUM, the Honeysuckle, from *caper*, a goat, and *folium*, or the goat leaf, from its climbing habit.

CARNATION, from *caro*, *carnis*, flesh, the colour of some varieties (*cf. carnage*, carnal, carnival, etc.).

CAULIFLOWER, see Cole.

CELERY, from French *celeri*, from Italian *seleri*, from Greek *selinon*, Parsley.

CERASTIUM, from *keras*, a horn—shape of seed vessels.

CEREUS, the Torch Thistle, from *cereus*, waxy; said to refer to the fact that some species are as pliant as soft wax, and some as brittle as wax tapers (*cf. sincere*—*i.e.*, without wax, referring to pure honey, or perhaps to a statue in which there are no flaws filled with wax).

CHAMÆROPS, from *chamai*, near the ground, and *rhaps*, a bush, a ground bush—*i.e.*, as compared with other tropical Palms (see Germander).

CHIMONANTHUS, from *cheima*, winter, and *anthos*, flowering in winter.

CHIONANTHUS, the Fringe Tree, from *chion*, snow, and *anthos*.

CHRYSANTHEMUM, *chrusos*, gold, and *anthos*, a golden flower.

CINERARIA, from *cineres*, ashes, from the grey down on the stem (*cf.* a cinerary urn; no connection with cinder).

CISTUS, from *kiste*, a box, referring to the shape of the seed vessel (*cf.* cistern, chest; no connection with cyst).

CLEMATIS, from *klema*, a Vine branch, from its climbing habit.

COCKLE. This word in Irish signified a small bowl, then a shell, whence the bivalve, or the shell of a nut, a husk, whence Corn-cockle (*Job xxxi. 40*).

COCO PALM. This word, *coco*, in Portuguese meant a bug-bear, an ugly mask to frighten children,

hence applied to the monkey face on the Coconut. The original sense was skull, allied to French *coque*, a shell; Latin *concha*.

COLE or KALE, CAULIFLOWER, from the Greek *kaulis*, a stalk, from *koilos*, hollow. (From this came the Latin *cælum*, heaven, French *ciel*, and English *cieling*, sometimes spelt *ceiling*.)

COLEUS, from *koleos*, a sheath, referring to the way in which the bases of the stamens are combined.

COMPOSITÆ. This order of plants is so called because (as in the Daisy) the blooms are compounded of a number of small flowers.

CONVOLVULUS, from *convolvo*, to entwine.

CORDYLINE, the Club Palm, from *kordule*, a cudgel.

COREOPSIS, from *koris*, a bug, and *opsis*, appearance, referring to the seeds.

CORNUS, Dogwood, from *kornu*, a horn, referring to the hard wood.

CORONILLA, *corona*, a crown, referring to the disposition of flowers.

CORYLUS, the Hazel nut, from *korus*, a hood, referring to the calyx covering the nut.

COTONEASTER, from *Cotonea*, Pliny's name for the Quince (see Cydonia), and *ad instar*, like—that is, like a Quince.

CRASSULA, dim. of *crassus*, thick, referring to the succulent leaves.

CRATÆGUS, from *kratos*, strength.

CROTON, from *kroton*, a tick—shape of seeds.

CRUCIFERÆ. The order whose flowers have four petals in the form of a cross. From *crux*, a cross, and *ferro*, to bear.

CRYPTOMERIA, from *kruptos*, hidden, and *meris*, a part, referring to the flowers being concealed (crypt).

CYCLAMEN, from *kuklos*, a wheel, referring either to the spiral stem which shoots out the seed when ripe, or to the shape of the flowers (cycle).

CYPRESS, **CUPRESSUS**, is said to be from *kueo*, to give birth to, and *parisos*, equal, referring to the symmetrical growth.

DENDROMECON, the Tree Poppy, from *dendron* and *mekon*, a poppy.

DICENTRA, from *dis*, twice, and *kentron*, a spur, referring to the shape of the flower.

DIGITALIS, the Foxglove, or Ladies' Fingers, from *digitus*, a finger, referring to the shape of the flowers. (The use of this word "digit" in arithmetic arose from the habit of counting on the fingers.)

DIMORPHOTHECA, from *dimorphos*, two-shaped, and *theke*, a receptacle, the florets of the disk being, of two forms.

DRIMYS means in Greek pungent, referring to the bark.

EDELWEISS, the little Swiss national flower, is from two German words meaning noble and white.

EGLANTINE, the Sweetbriar, from Latin *aculeus*, a prickle (acute).

EMBOTHRIUM, from *en*, in, and *bothros*, a pit, from the stamens being sunk in the corolla.

ENKIANTHUS, from *enkuos*, filled, and *anthos*, the flower being swollen in the middle.

EPILOBIUM, the Willow Herb, from *epi*, on, and *lobos*, the lobe of an ear, referring to the flower being seated on the seed pod, which is ear-shaped.

EREMURUS, from *eremos*, solitary (hermit), and *oura*, a tail, the flower spike springing up alone.

ERICA, from *ereiko*, to break, the wood being brittle.

ERIGERON is said to be from *ear*, Spring, and *geron*, an old man, some species being hoary with down early in the year.

ERINUS, from *ear*, Spring, early flowering.

ERIOBOTRYA, from *erion*, wool, and *botrus*, a bunch of Grapes, referring to its downy clusters of flowers.

ERYTHRONIUM, from *eruthros*, red.

EUCALYPTUS, from *eu*, well, and *kalupto*, to cover, the calyx concealing the bud.

EUCRYPTIA, from *eu*, and *kruphios*, concealed (crypt), same reason.

EXOCHORDA, from *ex*, outside, and *chorde*, a string, referring to the placenta.

FRAGARIA, the Strawberry, from *fragrans*, from the smell of the fruit.

FRAXINELLA, dim. of *Fraxinus*, the ash.

FRITILLARIA, from *fritillus*, a chess-board, the flowers of some species being chequered.

FUMARIA, from *fumus*, smoke, referring to the smell. FUMITORY is from the French *fume de terre*, smoke from the earth.

GALANTHUS, the Snowdrop, from *gala*, milk (galaxy, the milky way), and *anthos*.

GERMANDER, the Speedwell, from Greek *chamai*, on the ground, and *drus*, an Oak, corrupted in late Greek to *khamandrua*, and in mediæval Latin to *germandra*.

GILLYFLOWER, French *giroflee*, from the Latin *caryophyllum*, from Greek *karuophullon*, a Clove Tree, literally nut leaf.

GLADIOLUS, dim. of *gladius*, a sword (gladiator), referring to the leaves.

GLOBULARIA, from the globe-shaped flower.

GROUNDSEL, an Anglo-Saxon word, literally "ground-swallower," a fit name for such an abundant weed.

GYMNOCLADON, *gumnos*, naked (gymnasium), and *kladon*, a branch, no buds being on the young wood.

GYNERIUM, Pampas Grass, from *gune*, female, and *erion*, wool, the stigmas being woolly.

HAMAMELIS, the Wych Hazel, from *hama*, together, and *melon*, fruit, the flowers and fruit being on the tree at the same time.

HELIANTHUS and HELIANTHEMUM, lit. Sunflower. The former is said to be called from the belief that the flowers turn round to face the sun as the day goes on. The Italian for turning to the sun is *gira-*

sole, which was corrupted into *Jerusalem Artichoke*, *Helianthus tuberosus*, a plant which is not an Artichoke at all. From it the cook makes Palestine soup!

HELIOTROPE, too, means turning to the sun.

HEPATICA, from *hepatikos*, belonging to the liver; said to refer to the lobed leaves.

HUMULUS, the Hop, from *humus*, the ground (humidity), because it runs along the ground if not supported.

HYDRANGEA, *hudor*, water, and *angeion*, a vessel, from the cup form of the seed vessel.

HYPERICUM, St. John's Wort, from *huper*, because of, and *ereike*, heath, because they grow in similar places.

IXIA, from *ixos*, birdlime (from which viscous), referring to the clammy sap.

LABIATÆ. An order whose flowers have a lip (*labium*).

LEPTOSIPHON, from *leptos*, slender, and *siphon*, a tube, referring to the shape of the flowers.

LEPTOSPERMUM, from *leptos*, thin, and *sperma*, a seed.

LETTUCE, from *lac*, milk; has a milky juice.

LEUCOJUM, from *leukos*, white, and *ion*, a violet, referring to the colour and fragrance of the flowers.

LILAC, a Spanish word from the Turkish *leilaq*, from Persian *lilaj*, the meaning being the blue tree.

LIME, or LINDEN, is from an Anglo-Saxon word meaning smooth or pliant, easily carved.

LINARIA, Toadflax, from the resemblance of its leaves to Linum, Flax.

LITHOSPERMUM, stone seed.

LUNARIA, Honesty, from *luna*, the moon—shape of seed vessels.

LYCHNIS, from *luchnos*, a lamp—bright flowers.

MALOPE, from *malos*, white (uncertain).

MECONOPSIS, from *mekon*, a Poppy, and *opsis*, appearance like a Poppy.

MELIANTHUS, the Honey Flower.

MESEMBRIANTHEMUM, from *mesos*, the middle, *hemera*, the day, and *anthos*, the midday flower.

MESPILUS, the Medlar, from *mesos*, half, and *pilos*, a ball, referring to the shape of the fruit. MEDLAR is derived from Mespilus through the old French *Mesle*.

METROSIDEROS, from *metra*, the matrix, and *sideros*, iron, referring to the hard wood.

MISTLETOE, from Anglo-Saxon *mist*, glue or bird-lime, and *tan*, a twig. Called from its sticky berries.

MITRARIA, from *mitra*, a turban or mitre, referring to the shape of the seed pod.

MUSCARI, the Grape Hyacinth, from its smell like that of Musk.

MYOSOTIS, Forget-me-not, from *mus*, a mouse, and *ous*, an ear, referring to the shape of the leaves.

MYRRH, from the Arabic *murr*, bitter; Hebrew *mar* (Ruth i. 20).

NASTURTIUM, from *nasus*, a nose, and *tortium*, twisting, from its acrid smell.

NEPHROLEPSIS, from *nephros*, a kidney, and *lepis*, a scale, referring to the covering of the spore cases and their kidney-like shape.

NIGELLA, from *niger*, black, referring to the seeds.

NOTOSPARTIUM. *Notos* meant the south. We have it in *Notofagus*, the New Zealand Beech, etc. *Sparton* was cordage, then a broom.

ODONTOGLOSSUM, from *odous*, a tooth, and *glossa*, a tongue, referring to the indentations on the lip of the orchid.

OLEARIA, like an *olea*, or Olive Tree.

OMPHALODES, from *omphalos*, the navel, and *eidos*, like, referring to the seed.

ONCIDIUM, from *ongkos*, a swelling, excrescences on the base of the lip.

ONION, from *unio*, a unity, which the Romans applied to a single large pearl or an onion.

OSMANTHUS, from *osme*, perfume, and *anthos*.

OXALIS, from *oxus*, acid.

OZOTHAMNUS, from *ozos*, a branch, and *thamnos*, a shrub, a many-branched shrub. It is now called HELICHRYSUM, or Sun Gold.

PALM, from *palame*, the palm of the hand with outspread fingers, from the shape of the leaves.

PARSLEY, Greek *petroselinon*, from *petros*, a rock, and *selinon*, Parsley (see Celery).

PARSNIP, from Latin *pastinaca*, meaning a root dug up, from *pastinare*, to dig up.

PENTSTEMON, from *pente*, five, with five stamens.

PERIPLOCA, intertwining, from *peri*, around, and *pleko*, to twine.

PERIWINKLE, from Latin *pervinca*, from *per*, thoroughly, and *vincio*, to bind. (No connection with the shell fish.)

PHACELIA, from *phakeleos*, a bundle, the flowers being grouped.

PHALARIS, Canary Grass, from *phalaros*, shining, referring to shining seeds.

PHILLYREA, from *phullon*, a leaf, a leafy shrub with inconspicuous flowers.

PHLOX, a flame—brilliant flowers.

PHOTINIA, from *photinos*, shining, glossy leaves.

PHYSALIS, from *phusa*, a bladder, the large seed pod.

PIMPERNEL, from *bipinella* or *bipennula*, double-winged. *Penna* is a feather (a pen means a quill).

PINEAPPLE is called from the similarity of the fruit to a Pine cone.

PINGUICULA, Butterwort, from *pinguis*, fat, greasy leaves.

PINK, from an old Celtic word *pioc*, meaning to prick, allied with pick and peak. Pink is a nasalized form. The flower is so called from the delicately cut or pinked edge of the petals, and the colour is called from the flower.

PINUS and PICEA are from *pix*, pitch, resin-bearing genera. *Pinus* is short from *picnus*.

PIPTANTHUS, from *pipto*, to fall, and *anthos*, the flowers having short duration.

PITTOSPORUM, pitch seed, covered with sticky pulp.

PLAGIANTHUS, from *plagios*, slanting, and *anthos*, the petals having unequal sides.

PLANE, PLANTAGO, PLANTAIN, PLATANUS, from *platus*, flat or broad. The Plane Tree has spreading branches, the Plantain has wide flat leaves. From this word *platus* come plate, pate, place, plaice, plant, plaster, etc. But plane (a level surface), plane (a tool), plain, plan, plank, explain, etc., come from a quite different Greek word, *plax*, a flat place.

PODOCARPUS, from *pous*, a foot, and *karpos*, fruit, having the seed on stalks.

POLYANTHUS, many-flowered.

POLYGALA, Milkwort, abundance of milky juice.

POLYGONUM and POLYGONATUM, Solomon's Seal, though distinct genera, have the same meaning, from *gonu*, a knee (genuflexion), many-jointed.

POLYPODIUM, many-footed, the division of the creeping stem.

POLYSTICHUM, many-rowed, *stichos*, a row, from the rows of spores.

POMEGRANATE, from *pomum*, an Apple, and *granum*, a grain—fruit full of seeds. The botanic name is *Punica granatum*, from *puniceus*, red, the flowers being red.

POPULUS, POPLAR, from *palpo*, to quiver—trembling leaves. The *o* is long; in *populus*, a people, it is short.

PRIMULA, PRIMROSE (no connection with Rose), from *primus*, first, early flowering.

PTERIS, Bracken, fronds like wings.

PTEROCLARYA, from *pteris*, a wing, and *karuon*, a nut—winged seeds.

PUMPKIN, Greek *pepon*, a kind of Melon; from *pepto*, to ripen (then easily digested; compare dyspeptic).

PYRETHRUM, from *pur*, fire, referring to its acrid roots.

RAISIN, from *racemus*, a cluster.

RASPBERRY, the rough berry, like a rasp.

RETINOSPORA, from *retina*, resin, and *sporon*, seed. (This is not now a genus; it is merged in *Cupressus*.)

RHAMNUS, a Celtic word signifying a tuft of branches.

RHAPHIOLEPIS, from *rhapsis*, a needle, and *lepis*, a scale, referring to the shape of bracts.

RHAPHITHAMNUS, the Needle Shrub.

RHODODENDRON, the Rose Tree.

RUBUS, from *ruber*, red, referring to the colour of the fruit. (But the *Blackberry* is *Rubus fruticosus*.)

RUSCUS, Butcher's Broom, is from two Celtic words meaning Box and Holly.

SALPIGLOSSIS, from *salpinx*, a trumpet, and *glossa*, a tongue. Shape of flowers with tongue-like style.

SANGUINARIA, from *sanguis*, blood, the red juice.

SAPONARIA, from *sapo*, soap; the bruised leaves form a lather like soap.

SARSAPARILLA, from Spanish *zarza* (from the Basque), a bramble, and *parilla*, dim. of *parra*, a Vine.

SCHIZANTHUS, from *schizo*, to cut, and *anthos*, the petals pinked into fringes.

SCHIZOPHRAGMA, from *schizo* and *phragma*, a wall or enclosure; the portions of the wall between the ribs of the fruit fall away when ripe.

SCHIZOSTYLIS, from *schizo* and *stylus*, a column. (This latter word came to be used of a stake or any pointed instrument, then of the iron pen for writing on wax tablets, then of the author's "style" of writing.)

SCLADOPITYS, the Umbrella Tree, from *skia*, shade, and *pitus*, a fir—like a closed umbrella.

SEMPERVIVUM, from *semper*, always, and *vitus*, alive—tenacity of life.

SENECIO, from *senex*, an old man. The somewhat fanciful explanation given is that the seed vessel is like a bald head.

SILENE, Catchfly, from *sialon*, saliva; the gummy secretion of the leaves entraps flies.

SMILAX, from *smile*, a knife, perhaps referring to shape of leaves.

SOLDINELLA (see Solidago), coin-shaped leaves.

SORREL, from *sour*, referring to the taste.

SPARAXIS, from *sparrasso*, to tear—lacerated spathes.

SPARTIUM, Spanish Broom, from *sparton*, cordage, referring to the flexible shoots.

SPIREA, from *speira*, a wreath; the flowering branches were used as garlands.

STAPHYLEA, from *staphule*, a bunch of Grapes—the flowers in clusters.

STEPHANANDRA, from *stephanos*, a crown, and *aner*, a man—the stamens arranged like a crown.

STEPHANOTIS, *stephanos*, and *ous*, an ear, from the ear-like growth on the stamens.

STOCK, short for Stock Gilliflower—that is, the one that has a stronger stem than the Clove Gilliflowers.

STREPTOCARPUS, from *streptos*, twisted, and *karpos*, a fruit—the long twisted seed pods.

SYCAMORE, from *sukon*, a fig, and *moron*, a mulberry. What we call so (*Acer pseudoplatanus*) is akin to neither. Sycamine (Luke xvii. 6) is a Hebrew word (no connection with *sukon*), and denoted a mulberry.

SYMPHORICARPUS, from *sun*, together, *phoreo*, to bear, and *karpos*, bearing clustered fruit.

TAMARISK, a Sanskrit name meaning the tree with black stems.

TAXODIUM, from *taxus* and *oides*, like a yew.

THALICTRUM, from *thallo*, to flourish, referring to the vivid green of the young shoots.

THISTLE, from an Anglo-Saxon word meaning a tearer.

TIARELLA, dim. of *tiara*, a diadem, from the form of the seed pod.

TRICUSPIDARIA, named from its three-cusped petals.

TRIFOLIUM, TREFOIL, three-lobed leaves.

TRILLIUM, TRITELEIA, have the various parts of flower, etc., in threes. (These are distinct genera; the latter is now called Brodiæa.)

TRITOMA, *temno*, to cut—three sharp edges of the ends of the leaves.

TROLLIUS, from German *trol*, round, has globular flowers.

TULIP comes to us through the French, Italian, and Turkish from the Persian *dulband*, a turban (another form of the same word), from the shape of the flower.

TURNIP is a turned or round nip, from Latin *napus*, a turnip.

ULEX, Furze, from Celtic *ac*, a point, referring to the spiny branches.

VERATRUM, from *vere*, truly, and *ater*, black, the colour of the roots.

VERBASCUM, Mullein, from *barbascum*, bearded—the bearded stamens.

VETCH, VICIA, from *vincio*, to bind, twining. Fitch (Isa. xxviii. 27) is the same word.

VINCA (see Periwinkle).

WILLOW HERB, Epilobium, from the shape of the leaves.

WOODRUFF is perhaps from the ruff or whorl of leaves round the stem.

WYCH, Elm, Hazel, is sometimes supposed to be from witch, because a Hazel twig is used in water-divining. It is from an Anglo-Saxon word *wican*, to bend, from its pliant branches. (Compare wicker, weak, and wick of a candle. A wicket is a small gate that easily turns, and a wicket in cricket was at first "a small gate," being 2 feet wide by 1 foot high.)

XANTHOCERAS, from *xanthos*, yellow, and *keras*, a horn, referring to the yellow horn-like nectaries.

SPECIFIC NAMES

THE following list of specific names, with their meanings, is not, of course, exhaustive. Such a list would fill a volume. It is computed that there are more than 15,000 species of orchids, 12,000 in the Compositæ family, 7,000 Leguminosæ, and 10,000 Ascomycetes, a class of the higher Fungi. This gives us an idea of the enormous number of plant species that have been defined and named. I have therefore reduced the list to reasonable dimensions by the omission of the following classes of names:

1. Names of little known, obscure, or tropical species which are of small interest to the ordinary gardener.
2. Names commemorative of persons, which may be recognized by their beginning with a capital.
3. Names referring to a country or region, as *americanus* or *alpinus*.
4. Self-explanatory names, as *superbus*.
5. Names compounded with the prefixes or terminations given below. Every gardener should be thoroughly familiar with these, as they enter into and explain a vast number of names.

LIST OF PREFIXES AND TERMINATIONS

In this list the position of the stroke indicates whether a prefix or a termination is meant. Thus *-oides* is a termination, *steno-* a prefix. In some

cases the auxiliary word is used in both ways, then it has the stroke both before and after. In the case of terminations which are Latin or Latinized adjectives the last letters are omitted, as they vary with the gender of the genus. Thus *acanth-* may be either *acanthus*, *acantha*, or *acanthum*; *glab-* may be *glaber*, *glabra*, or *glabrum*; *grand-* may be *grandis* or *grande*.

Various forms of the same word are sometimes met with; thus *crenatus* and *crenulatus*, *fulvus* and *fulvidus*, *aestivus* and *aestivalis*, *foliosus* and *foliolosus*. In such cases the simplest form is given.

a-	not	-escens ..	becoming
-acanth- ..	a thorn	(canescens	becoming
alb-	white		white)
-anthus or		eu-	well or beau-
-anthes	a flower		tiful
anti-	like	-fer	bearing
argento- ..	silvery	-flor-	a flower
atro-	black	-fol	a leaf
aureo-	golden	-form	the shape
bi-	two	glab-	smooth
brachy-	short	grand-	large
calo-	beautiful	gymn-	naked
-carp	a fruit	-gyn-	female
-caulis	a stem	hæm-	blood
cephal-	a head	hetero-	of different
cheir-	a hand		sorts
chrys-	golden	holo-	entirely
circum-	around	homo-	resembling
-cladon	a shoot	-immus or	
crypt-	concealed	-issimus	superlatively
dasy-	hairy	in-	not
erythro-	red	iso-	equal

lati-	.. broad	-pod-	.. footed
lepto-	.. thin	poly-	.. many
macr-	.. large	pseudo-	.. false
mega-	.. large	ptero-	.. winged
melan-	.. black	rhiz-	.. a root
micr-	.. small	rhod-	.. rosy
mon-	.. single	schiz-	.. split
multi-	.. much or many	scler-	.. hard
myri-	.. innumerable	semi-	.. half
nudi-	.. naked	semper-	.. always
-oides	.. like	sten-	.. narrow
oligo-	.. few	strept-	.. twisted
-opsis	.. like	sub-, suf-	under or somewhat
oxy-	.. sharp	tetra-	.. four
pachy-	.. thick	-thamnus	branched
parvi-	.. small	trech-	.. hairy
penni-	.. feather	uni-	.. one
pent-	.. five	xanth-	or zanth- yellow
phil-	.. loving	xyl-	.. woody
-phyll-	.. leafed	zyg-	.. yoked to- gether
platy-	.. flat or wide		
pleur-	.. at the side or ribbed		

Acaulis, stemless; *acer*, sharp, pungent; *acuminatus*, sharply pointed; *aculeatus*, prickly; *adpressus*, pressed on; *aestivus*, in summer; *affinis*, related to; *agrestis*, rural; *alatus*, winged; *albescens*, *albicans*, becoming white; *albus*, white; *algidus*, cold; *alpetris*, mountain; *amabilis*, lovable; *amarus*, bitter; *ambiguus*, doubtful; *amoenus*, pleasant; *amplexicaulis*, sheathing the stem; *anceps*, two-headed; *angustus*, narrow; *annularius*, ringed; *anomalus*, irregular; *apertus*, open; *apiculatus*, pointed;

apterus, suitably fitted; *aquatis*, living in water; *aquifolius*, needle-leaved; *arachnitis*, cobwebby; *arboreus*, tree-like; *arenosus*, sandy; *argenteus*, *argurus*, silvery; *argutus*, clear or pungent; *aridus*, dry; *aristatus*, best; *armatus*, armed; *arvensis*, belonging to cornfields; *asper*, rough; *aucuparius*, enticing birds; *augustus*, majestic; *aureus*, golden; *australis*, southern; *azureus*, blue; *aveleanus*, torn from.

Baccatus, berried; *barbatus*, bearded; *bellus*, beautiful; *blandus*, pleasant; *bonus*, good; *borealis*, northern; *botrycides*, bearing bunches like Grapes; *bracteatus*, furnished with bracts; *brevis*, short; *brumalis*, wintry; *bryoides*, moss-like; *bullatus*, like a bubble.

Cæruleus, heavenly blue; *cæsius*, bluish-grey; *cæspitus*, turf; *calyculatus*, *calycinus*, furnished with a calyx; *cambricus*, Welsh; *campanulatus*, bell-shaped flowers; *campestris*, belonging to plains; *cancellatus*, latticed; *candicans*, *canescens*, growing white; *candidus*, white and shining; *canus*, greyish-white; *capensis*, from the Cape of Good Hope; *capillaris*, hair-like; *capitatus*, furnished with a head; *cardinalis*, red; *carus*, dear; *carneus*, flesh-coloured; *castus*, chaste, spotless; *caudatus*, tailed; *caulis*, stemmed; *cernuus*, with face down; *cirrhosus*, curled; *ciliatus*, *ciliaris*, furnished with hair like eye-lashes; *cinereus*, covered with ashes; *citrinus*, yellow; *clarus*, brilliant; *coccineus*, scarlet; *cochlearis*, snail-shaped; *caelestis*, heavenly; *colosseus*, gigantic;

comatus, hairy; *communis*, common; *comptus*, adorned; *concinnus*, neat; *concolor*, of same colour; *confertus*, dense; *congestus*, crowded; *contortus*, twisted; *copiosus*, abundant; *cordatus*, heart-shaped; *coriaceus*, leathery; *cornutus*, horned; *coruscans*, flashing; *corymbosus*, with clusters; *crassus*, thick; *crenatus*, scolloped; *crispus*, curled; *cruentus*, bloody; *cuneatus*, wedge-shaped; *curtus*, short; *cuspidatus*, pointed; *cyneus*, dark blue.

Dealbatus, white-washed; *decandra*, with ten stamens; *decorus*, becoming; *decumbens*, lying down; *decurrans*, passing down and adhering to; *decussatus*, intersecting; *dentatus*, toothed; *dichotomus*, twice forked; *didymus*, twin; *dependens*, hanging down; *diffusus*, spread; *dimorphus*, of two forms; *discolor*, of two colours; *distichus*, in two rows; *divaricatus*, stretched apart; *dolabratus*, hatchet-shaped; *dulcis*, sweet; *durus*, hard.

Edulis, edible; *elatior*, higher; *esculentus*, edible; *eximius*, uncommon, excellent; *excelsus*, lofty.

Falcatus, scythe-shaped; *farinosus*, mealy; *fastigiatus*, sharpened to a point; *fibrosus*, *fastuosus*, fibry; *filiferus*, bearing threads; *fimbriatus*, fringed; *fissus*, split; *flabellatus*, fan-shaped; *flaccidus*, flabby; *flavus*, yellow; *flexuosus*, full of bends; *floccosus*, woolly; *florabundus*, full of flowers; *flore pleno*, double-flowered; *floridus*, flourishing; *fœtidus*, stinking; *foliosus*, leafy; *formosus*, beautiful; *frondosus*, leafy; *fruticosus*, bushy; *fugax*, transitory; *fulgens*, *fulgivus*, gleaming; *fulvus*, tawny; *fuscus*, dark.

Gelidus, icy; *gemma*, bearing buds; *glaber*, smooth; *glaucus*, bluish-grey; *glomeratus*, heaped together; *glutinosus*, sticky; *gracilis*, slender; *grandis*, large; *gratirosus*, favoured; *gratus*, pleasant; *graveolens*, strong-smelling.

Helix, winding; *hiemalis*, wintry; *hirsutus*, with stiff hairs; *hirtus*, shaggy; *hispidus*, rough with hairs; *horridus*, bristly; *hortensis*, belonging to the garden; *humilis*, low; *hyperboreus*, northern.

Igneus, fiery; *illustris*, renowned; *imberbis*, beardless; *imbricatus*, overlapping, like tiles; *immaculatus*, unspotted; *incanus*, grey; *incarnatus*, flesh-coloured; *incisus*, divided; *inermis*, unarmed (without thorns); *inflatus*, swollen; *insignis*, remarkable; *integer*, entire; *intumescens*, swelling; *involutatus*, with volucræ, or envelope round flowers; *iridescens*, shining with various colours.

Maximus, greatest; *melano-*, black; *melleus*, honeyed; *micans*, glittering; *mirabilis*, wonderful; *mitis*, mild, ripe; *mollis*, soft; *mucronatus*, having a sharp point; *multus*, much, many; *muralis*, on the wall; *muscoides*, moss-like; *mutabilis*, changeable.

Nanus, dwarf; *neglectus*, disregarded; *nemorosus*, *nemoralis*, of the grove; *niger*, black; *nitens*, *nitidus*, shining; *nivalis*, snowy, white; *nodosus*, knotty; *nudus*, naked; *nutans*, nodding.

Obconicus, shape of an inverted cone; *occidentalis*, western; *ochroleucus*, yellow white; *oculatus*, having

eyes, spotted; *officinalis*, used in a workshop, hence medicinal, or useful for manufacture; *olens*, strong-smelling; *onustus*, laden; *oppositifolius*, having opposite leaves; *ornatus*, adorned; *oxycanthus*, with sharp flowers.

Pallidus, pale; *paluster*, marshy; *paniculatus*, tufted; *pannosus*, ragged, shrivelled; *papillosum*, bearing small nipples; *parvus*, small; *patens*, *patulus*, open, patent; *paucus*, few; *pectoralis*, belonging to the breast; *pedatus*, foot-like; *pedunculatus*, stalked; *peltatus*, armed with a shield, shield-like; *pennatus*, winged; *peregrinus*, foreign, strange; *petiolaris*, having leaf stalks; *petræus*, rocky; *pileatus*, capped; *pilosus*, hairy; *plenus*, full; *plicatus*, folded; *plumosus*, feathered; *præcox*, premature, precocious, early; *præstans*, outstanding; *pratensis*, growing in a meadow; *princeps*, chief; *procerus*, tall; *procumbens*, lying down; *pubens*, mature, luxuriant; *pudicus*, modest; *pulcher*, *pulchella*, beautiful; *pullus*, dark; *pulverulentus*, dusty; *pumilus*, dwarf; *pungens*, pricking, stinging; *purpureus*, purple; *pusillus*, very small; *pygmæus*, dwarf.

Quinatus, fivefold.

Racemosus, full of clusters; *radicans*, rooting; *ramosus*, branched; *rectus*, straight or upright; *reflexus*, bent back; *repens*, sudden, unexpected; *reptans*, creeping; *reticulatus*, netted; *retroflexus*, bent back; *retusus*, thrust back; *ringens*, gaping; *riparius*, growing on river banks; *ruber*, red; *rufus*, ruddy;

rugosus, wrinkled; *rupiculus*, growing on rocks; *rutilans*, shining with ruddy gleam.

Sanguineus, bloody; *sarmenosus*, full of twigs; *sativus*, cultivated; *saxatilis*, frequenting rocks; *scaber*, rough; *scandens*, climbing; *sclerus*, hard; *scutatus*, armed with a shield; *secundus*, from *sequor*, to follow, meant second in order, then second-rate, also, as used of a following wind or tide, favourable, propitious (in botany it means "on one side"; thus *secundiflora* means that the flower is on one side, not round the flower stem); *serratus*, notched; *semperfivus*, ever-living; *sessiliflorus*, flowers sitting tight, no stalks; *setosus*, *setaceus*, *setigerus*, bristly; *sinensis*, Chinese; *sinicus*, curved, swelling like a breast; *sinuosus*, wavy; *sordidus*, dirty, paltry; *speciosus*, beautiful; *spectabilis*, worth seeing, notable; *spicatus*, spiked; *squamosus*, scaled; *stellatus*, starry; *striatus*, fluted; *strictus*, drawn together, narrow; *suavis*, pleasant; *subulatus*, awl-shaped; *sylvaticus*, *sylvestris*, pertaining to woods.

Tectus, covered; *tenebrosus*, gloomy; *tener*, tender; *tenuis*, thin, weak; *teres*, rounded; *tomentosus*, densely haired; *tortus*, *tortuosus*, twisted; *typhina*, like a bulrush.

Uliginosus, marshy; *umbellatus*, branched like an umbrella; *umbrosus*, shady; *urens*, burning, stinging; *utilis*, useful.

Vagans, rambling; *vaginatus*, sheathed; *validus*, strong; *velatus*, veiled; *venenosus*, poisonous; *venosus*,

veined; *venustus*, charming; *verecundus*, bashful; *vernus*, *vernalis*, pertaining to the spring; *verus*, true; *versicolor*, of various colours; *verticillatus*, arranged in whorls; *vespertinus*, belonging to the evening; *villosus*, shaggy; *virens*, *viridis*, green; *virgatus*, twiggy; *viscosus*, sticky; *vulgaris*, ordinary.

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